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JOHNSTONE & DUNCKLEE.

On Draining.

The importance of underdraining in all sections of this country, even with the advantage of its dry climate is fast becoming apparent to intelligent farmers. In England, where agriculture is carried to the extreme of perfection, it has long been an established fact that thorough drainage is as necessary as thorough plowing, to raise crops advantageously. We find all those who now undertake to carry on extensive operations in raising trees, and in pursuing the business of cultivation of the land for the purpose of growing the best and most difficultly raised crops, preparing their ground by thorough tile draining first. We have recently received several letters asking for information as to the tools necessary for constructing drains cheaply and speedily, and also relative to the principles that should govern our correspondents in getting ready to improve a piece of ground by draining, and whether the expenditure which it would cost would be repaid within a reasonable time. To all these questions it would be impossible to give more than a general answer, from the experience of those who have tried the system in other places, for we are not aware of any extensive operation having been tried and carried out in this State. If any of our friends or subscribers have tried or made any experiments, either successful

or unsuccessful in draining, we should be glad to hear an account of them.

The object of draining is to remove an excess of water from the land. It is not necessary to discuss the philosophical principles which are involved in this improvement; but every one will admit that water may become just hurtful as fire, if allowed to have its own way. It is well known that long standing water soon turns the land sour, so that it will not produce valuable crops. Water, when allowed to remain on land so that it shuts out the air from the roots of plants, is just as injurious and pernicious to the crops as though it had been allowed to cover their leaves. This is peculiarly the case with all crops, that are beneficial to the farmer.

The known benefits of the speedy removal of water to the farmer can hardly be enumerated. But among those which are the most striking may be named:

1st. It increases by a larger proportion the cereal and grass crops, and without it no root crops can be grown to advantage.

2nd. In the case of winter crops, it prevents much damage from the effects of the frost.

3rd. It allows the spring work to be done at an earlier season, and saves much valuable time to the farmer, at the most important season of the year.

4th. It renders lands, that have heretofore been of little or no value, the most productive and capable of giving remunerative returns and the best paying crops.

These are only some of the most important benefits conferred, which all who have practised the system either in this country or in Europe, unanimously concur in admitting to be general and well known.

The several causes which render lands wet and consequently infertile, which may be enumerated are as follows:

1. By the overflow of streams.
2. By springs, which have no sufficient or regular outlet.
3. By the rains which are held as in a basin where the surface of the land is level, and the subsoil is hard and impervious, and consists of hard-pan or clay.

In a brief article like the present, and which is only intended to give a description of some of the results that have been known to follow the constructions of drains in the United States, and to place before our readers some of the implements most used, and some that are coming into use for the construction of drains, it is impossible to condense into a small space all that may be said, relative to a subject so very extended as that of drainage.

One of the farmers who has tried draining very successfully in this country, is Mr. John Johnston, of Seneca county, New York. He commenced his first trial of the system in 1835, when he imported patterns for his tiles from Scotland, and set men to work in his neighborhood to make them by hand for his own use. The expense of procuring the tiles restricted his operations to small portions of his farm; but so beneficial were the results, that they encouraged Mr. John Delafield, now the President of the Agricultural College in New York, to import a machine for making tiles, since which time the cost has been reduced so that no further difficulty has been experienced from that cause.

In a report made to the New York State Agricultural Society in 1852, Mr. Johnston says as follows:

"About six years ago, I began to drain a field on the boundary line between Mr. Delafield and myself; the field contains about twenty acres, of which six were then subject to drainage; the six acres had seldom given a remunerating crop, even of grass; after draining the six acres, the whole field was plowed and prepared for corn, two acres of which I reserved for potatoes. The usual care was given to the cultivation of the whole crop, which during its growth, showed a marked difference between the drained and undrained portions of the field; the yield of this field proved to be the largest ever raised, as I believe, in the county, the product being eighty-three bushels and over, per acre; when the corn was husked and housed, it was weighed and measured in the ear, and allowing *seventy-five pounds* to the bushel, as has been customary in this region, for corn and cob, the product was as above stated. This field attracted much attention, from my neighbors and other gentlemen from more distant places; it was examined at the time of draining, and after plowing, both the first and second season, permitting the parties to walk on the drained parts, without any undue moisture, while all other undrained land in the neighborhood was muddy, and, as before stated, the corn was found to be far more vigorous in the plant and abundant in the grain. In the following season after the corn, I cropped it with barley, and found the drained land produced altogether the finest plant, and the best yield of grain; when the barley was harvested, I prepared the field and cropped it with wheat. The difference again was so striking and distinct in favor of the drained land, that I felt the propriety of thoroughly draining the whole field, which was completed without loss of time, at a cost of twenty-two dollars per acre for the whole field.—I then plowed and sowed with barley and seeded with

clover, of the latter I cut a very large crop last summer, and not one square foot of the clover froze out, and now I can rely on a good crop of any thing I may sow or plant."

This is merely cited as one of the most reliable accounts known of the good effects of draining.—Several others have occurred of marsh lands beside the city of New York on Long Island, and in other portions of the same State. All concur that the excess of the crops in two or three years have amply paid back the sum invested in the improvement, and Mr. Johnston says, that if he gets two crops of wheat from his drained land, he is repaid by the excess of the crops, all the construction of the drains have cost him.

If these are the results of this improvement as declared by a practical man; it will be well now to look at the mode of operations by which the improvement is made.

The first point for the farmer to make up his mind in commencing to drain is to settle on how much he can do for one season, and do it well.—Having resolved to commence operations, his first duty will be to fix the point where his main drain or drains ought to empty, and as a general principle the lowest ground should be first fixed upon, as that in which operations ought to be commenced, by the construction of wheat is called the main drains, which serve to carry off the water from the side drains. These main drains, except in extraordinary instances, have been found large enough when made of tile four inches in diameter; but sometimes where there is an extra supply of water from roads or from the ditches in neighboring farms, six inch tile is required, or a double row of 4 inch may be laid down. Much of the construction must depend upon the good sense and judgement of the man who superintends the work.

The tiles mostly used for main drains are the horse-shoe tile, and the pipe tile of which we give the following figures:

Horse-shoe Tile.



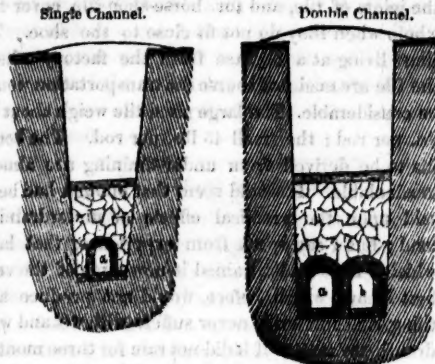
Pipe Tile.



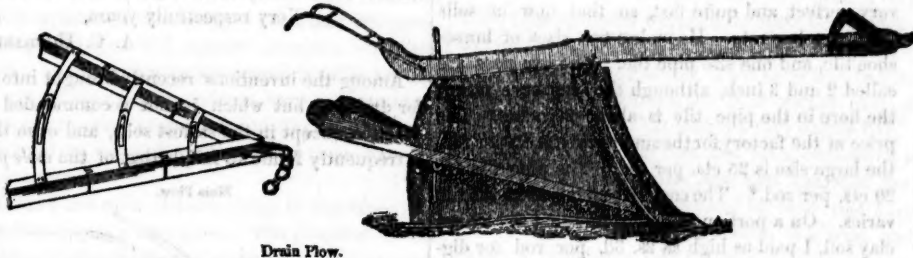
In Albany, N. York, where these tiles are manufactured on a large scale, they are furnished at \$18 per 1,000 for 4½ inch horse-shoe, and \$40.00 per 1,000, for 4 inch sole tile; 2½ and 2 inch horse shoe and sole tile cost \$12.

The ditch in which these tiles are placed ought to present an appearance like the following cuts, which

illustrate sections of drains with either a single or double channel for the flow of water.



In making the ditches the tools mostly used are the common spade and a narrow spade, such as is represented in the cut in the next column, with a figure of a draw-drain scoop.



Draw drain Scoop.

This plow is the invention of a farmer named J. B. TIFFANY of Coxsackie, Greene county, N. York, and consists of a main standard to which are attached two moveable elevators, with mould-board attachments, and to the point are fastened three knives or coulters, viz: the centre one a little in advance of the other two, which are on each side, and which cuts the earth so as to let the standard pass readily through the soil; the other knives cut the earth at the sides of the ditch to the required width of the trench. As the earth is cut, and the plow moves forward, the whole of the soil is passed up on the elevators, and thrown to the side of the ditch by the mould-board at end of the elevators.

Should the ditch not be made deep enough at the first cut, the plow is followed by a flexible jointed spreader, shaped like a triangular harrow, as seen above, which scatters the earth thrown out on the sides of the ditch, and out of the way of the next elevation. By reversing the spreader, the earth taken out can be nearly all filled in again after the tile is laid.

In relation to the side drains, there is not so much need for an exercise of care in selecting their direction for the main and sub-main drains will always point out and govern the direction in which they ought to be constructed. The distance at which

they ought to be constructed ought to be governed by the kind of soil, through which they are to be laid; for instance in a stiff clay, it is necessary to have these drains much closer than in a loamy or more porous soil; and the distance they are laid apart is varied from 25 feet to 50 feet, according to the kind of ground. These small drains are now generally laid with round pipe tile, at a depth of two and a half feet.

Mr. Hubbard, of the firm of Hubbard & Davis, showed to us at his nursery, some time ago, a field in which he had laid down a large number of these two inch pipe tile, last fall, at a depth about two feet, and they had stood the winter very well. It was too soon to be able to say what good effects had accrued, beyond the fact, that where before at the same time it had been one of those little hummocky marshes, which produced only marsh grass, rushes, sedges and flags, and where the water remained generally about ankle deep till August, was in May dry and firm, and so that leached-ashes, and refuse stuff of various kinds, could be carted all over it with ease.

The cost of laying these kind of drains depends very much on the expense to be incurred in procuring the tiles. Mr. Theron G. Yeomans, of New York, found that it cost him about twenty cents per

rod to make the ditch and lay the tile, and about 20 cents for the small 2 inch circular pipe tile which he laid down. The larger drains cost nearly 56 cents per rod when finished.

The following letter from Mr. A. C. Hubbard, of the firm of Hubbard and Davis of this city, giving his opinion on the benefits of tile draining, and manner of laying them with the cost, contains much valuable information on this subject and will repay perusal.

DETROIT, July 6, 1853.

R. F. JOHNSTONE, Esq.—*Dear Sir:*—In reply to your note of the 2d inst. I would say that drain tile are manufactured at Bloomfield Centre, Oakland Co., by John Daines. I had a portion of the first he made, more than two years since, and although they were imperfect, being crooked, warped, &c. I found them to answer an admirable purpose. After a little practice, Mr. Daines succeeded by a very ingenious contrivance in making them very perfect, and quite fast, so that now he sells them at a low rate. He makes two sizes of horse-shoe tile, and one size pipe tile. The two sizes are called 2 and 3 inch, although they measure more; the bore in the pipe tile is about 2 inches. The price at the factory for the small size is 20 cts per rod, the large size is 25 cts. per rod. The pipe tile are 20 cts. per rod.* The cost of putting down the tile varies. On a portion of my ground that was a hard clay soil, I paid as high as 2s. 3d. per rod for digging the ditch. On other portions where it was sand, a man would dig about 8 rods per day 2½ feet deep, this cost not over 1s. per rod; the sides of the ditch may be upright where the earth will stand, when it slides the sides may be slanting. More benefit would be received from this method of ditching by putting it as low as two feet. Some that I have put down is as much as three feet deep—on ordinary farming land no doubt 18 inches would do very well. The Horse-shoe tile is designed to be laid upon a shoe. I have used refuse clapboards, which cost about \$6 per 2000 ft. of ditch. When the earth is hard, the fall regular and not too much, and sufficient care is taken in putting down the tile, the shoe may be dispensed with. I had occasion to take up a short piece of drain that had been down 2 years without a shoe, and in sandy ground, that was perfectly free, not having filled up in the least. The pipe tile will answer equally as good a purpose as the Horse-shoe, and with this kind (pipe-tile) there is no need of a shoe. To lay them straight and fast—string them on a pole and lay them into the bottom of the ditch, cover the joints over with shavings, when to be had, if not, straw, or an inverted sod, fill in the earth around them, draw out the pole, string on more, inserting the end of the pole a few inches into the last laid tile cover as before and so

* Mr. Daines delivers them in Detroit for 1s. per rod extra, making 2s. 6d. and 3s. per rod, delivered in Detroit.

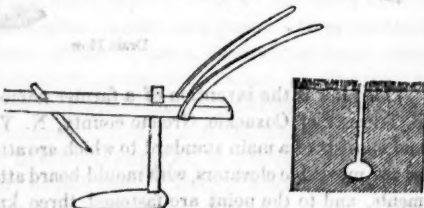
on. I use shavings from a joiner's shop to cover the joints of tile, and for horse-shoe tile, cover the whole when they do not fit close to the shoe. To those living at a distance from the factory where the tile are made, of course the transportation would be considerable. The large sized tile weigh about 60 lbs. per rod; the small 45 lbs. per rod. The benefits to be derived from under-draining are almost incalculable. It would seem that enough had been said upon the practical effects of underdraining land; but I can speak from experience, that land which I have underdrained is now some of the very best I have, which, before, would not produce any thing, and further it never suffers with wet and with drouth, no matter if it did not rain for three months, so far as the soil is concerned. These tile ought to be made in different portions of the State—so that they might be conveniently obtained. No doubt arrangements might be made with Mr. Daines to furnish machines upon reasonable terms for others.

Very respectfully yours,

A. C. HUBBARD.

Among the inventions recently brought into use for draining, but which is not recommended for practice, except in the stiffest soils, and even there is frequently found to fail, is that of the mole plow.

Mole Plow.



The mole plow consists of a strong beam to which two handles are attached; passing through the beam, is affixed a perpendicular coultter to the bottom of which is affixed a round cone shaped piece of iron as represented in the cut, which forms the drain by being drawn either by a windlass or by a team through the ground at such depth as may be desired. Here the difficulty would be in the use of such drains as the mole plow would make, their destruction by frost each year. The percolation of the water through the vein left in the ground having tendency to fill them up. The London *Farmer's Magazine* mentions, however, that drains made in lands of the late Thomas Bates, of Kirkleavington, so well known as a cattle breeder, thirty years before by the mole plow, on making a cutting for a portion of the Hartlepool railway, were found to be perfect as when first cut, and the water was running in them perfectly clear.

The action of the mole plow has been taken advantage of in England, to lay by its means cylindrical pipe tile, and a Mr. Fowler has improved it so that

by attaching to the rear of the mole a strong wire-rope on which the tile are strung to the length of forty rods in a string, the whole is dragged into the earth by the power of a windlass and a pair of horses, and the rope being drawn out, the tile is left in place and more regularly laid than they could be by hand.

Inquiry as to Grasses.

A New Subscriber writes to ask for information relative to the subject of grass-seed as applied to sandy lands and to the oak openings of this State. He says: "I am well aware of the value of clover as a fertilizer, and also as food for cows, but I believe that from its dusty quality when made into hay that it is entirely unfit for provender for horses. Timothy does not succeed well with us, and in consequence of the want of a substitute for clover, the disease known as the "Heaves" is beginning to be prevalent among our horses. Now what I want to get is, knowledge of any other grass that will prove productive; that will sustain drought; where the seed is to be procured; and how it is to be sowed? If any of your correspondents have had any experience with other grasses on our dry oak openings, I should be pleased to hear from them through your columns."

One of the most difficult things to introduce into a community is a new grass. The practical farmer dislikes to run the risk of making experiments with a crop of which he knows very little how it may be suited to his soil, or to the field where he plants or sows it; and then there are so many chances that an error of treatment on his part may render the crop worthless, and thus the whole be condemned in his neighborhood; while he that traveled a little way out of the beaten track, besides losing his time, the use of his land, his labor, and perhaps some of his cash, is very apt to get laughed at by those less bold and less willing to experiment than himself.

There has been, as yet, no grass found of equal value for the purpose of making hay to the well-known Timothy, called in England the Cat's Tail, and by botanists *Phleum pratense*. But it thrives best on a rich and rather moist soil. The Kentucky Blue grass is highly spoken of as just such a grass as the writer requires; but how it would thrive as a grass for hay in this State until we have actual experience to cite, we are not prepared to say. Another grass that has been little tried here is the Rye grass, which is the variety of grass most relied upon for the hay crops of Great Britain. Orchard grass has been spoken of as a fine grass for pasture and for hay; but though it has been tried by many who have had a great desire to cultivate it successfully, it is far from being generally cultivated, and some who have tried it positively consider it a nuisance. A writer in the *Albany Cultivator*, for August, 1862, says he

has tried it for several years thoroughly, and states as follows: "I shall never, with the utmost care in its extermination, recover from its effects. I was led to use it from its reputation of doing well under trees. The difficulty is to make it come in evenly; the most careful sowing, and the greatest quantity of seed will not produce a sod. It comes on sparsely and irregularly, in bunches or tufts; and as it matures earlier than either red clover, timothy or red-top, it must be cut before these grasses are ready, which prevents it being combined with them for hay fields."

"The only manner in which I can conceive of its being advantageously used, is sown by itself at the rate of one to two bushels to the acre, and never allowed to seed, but cut two or three times a year for soiling. It is very early, and makes a strong, nutritious, but not a close or abundant pasture; and, if allowed to seed, gradually overruns in single spires or stools, one's whole place. My lawn is very much injured in this way, and the roots being stocky and long, are difficult to destroy."

"My experience and that of my neighbors (whose fields have suffered from the seed wafted over) is much opposed to it. It makes a very coarse hay."

So much for a grass that has been considered a most valuable acquisition, and that has been frequently held up for cultivation by those who have never tried it. It possesses merits, it is true, and those are principally that it comes in early for pasture, and if cut before flowering, it may afford two or three cuttings in one season.

If there has been a successful attempt to supercede clover on sandy or dry lands, we should like to hear of it. But clover, for the purpose of putting a soil into barrens, is yet the most reliable plant.

The chief difficulty with clover hay is, that in the first place the clover itself is allowed to get too-ripe before it is cut; in the next place, in making the hay in the very dry climate of Michigan, a great many farmers cure their hay in the same mode they would pursue or they have already learnt in the moister and colder States from which they have originally come. Clover hay if well cured need not be any dustier, or less succulent, or less palatable than timothy; and we know that when it is rightly put up, and sprinkled with a little salt when put into the mow, it is liked better by nearly all animals than any other feed; and they thrive better on it. But if the persons who grow this crop choose to let it more than half run to seed before it is cut, and allow the most valuable part of the plant, which is the leaves and flowers, to be withered and dried till they are so crisp that the sweating they undergo when stored away dissipates every nutritive particle into dust, the clover plant ought not to bear the blame; but it ought to be attached to the man who tries to make hay out of it, and does not go to work the right way.

Madder—Its Cultivation—Inquiry.

A subscriber from Bucks County, Pennsylvania, writes to us as follows:

"Can the Editors, or any of their numerous correspondents, give any information respecting the cultivation of Madder, what would be its yield per acre, the cost of cultivation, &c.?"

In reply, we give some of the best practical experience that is within our reach at present, and at the same time ask any of our readers to forward any experience they may have had in the cultivation of this article so much used in manufactures, in still further response to the inquiry of our friend in Bucks County.

In the first place, *Madder* is grown by a herbaceous plant, the valuable parts of which are the roots, from which are prepared the fine dye stuff that is used so much to color various fabrics of the loom.

The chief object therefore in the cultivation of madder should be to cause the growth of as many roots as possible from the plants. Those who have pursued the cultivation of madder most successfully in the Northern States, argue that the kind of land most suitable for its growth is a rich sandy loam, rather inclined to moisture, but not liable to become wet. If the land is not rich, a good coating of rotted barnyard manure, or swamp muck may be applied and thoroughly plowed in. It is considered preferable to plow the land in the fall, and then again in the spring. When the ground is prepared, the hills are made by the plow, and marked out at a distance of six feet apart one way, and eight feet apart the other, the hills themselves being about two feet across at the base, and raised in a somewhat conical form about a foot high. On the top of the hill the sets are laid, and covered about two inches deep. As soon as the plants are started they ought to be weeded and kept clean with the hoe until they are about a foot high, when they will begin to fall over the hill on all sides. A slight coat of earth is now to be thrown on the top of the plants so as nearly to cover them all but four or five inches of their ends. This covering of earth causes the plants to throw out new fibres, and to make more roots from each joint of the stem of the plants. In keeping the ground clean, and continually covering up the stems of the plants, so that they will keep throwing out roots, consists the whole management of the madder field. This treatment is continued for three to four seasons in succession, till the whole ground is covered with a complete mass of roots. Generally, three coverings in the course of one season are considered enough, the last one being about the end of September; so that time is given to the stems to form new roots ready to start up at the commencement of spring.

Some of the most successful cultivators, on the

occasion of the first earthing, throw on a shovelful or two of manure on each hill. The earth plowed up between the rows furnishes the soil that is successively thrown on the hill with a shovel by hands employed for that purpose.

The madder thus grown is not dug or plowed up till the fourth season, which is done as follows: About the beginning of September all the tops are cut off close to the roots with a sharp hoe, and gathered into heaps, so that they may not interfere with the digging and collecting of the roots. The roots are plowed or dug out, and gathered with any handy forked instrument that will help to shake them clear and free from earth. They are then picked apart, put in a wash-tub and made thoroughly clean, placed in a kiln and dried, so as to be fit for grinding, which may be done in any cast-iron machine, such as a large coffee or spice mill.

The sets are obtained from the seed, which is generally sown a year before hand, and consist often of the young plants raised from the seeds, or pieces or cuttings of the surface roots, (for there are two kinds of roots, those which penetrate the ground to a considerable depth, and those which run along near the surface and throw up stems,) with an eye in them and some fibres attached. These are easily kept through the winter in any cellar.

The produce per acre has been stated to reach from three to four pounds per hill, where there were only 1500 hills to the acre; and the expense of cultivation annually was not so costly as that of an ordinary corn crop. In market it sells readily. Jas. Eaton, of Herkimer County, New York, who has cultivated this plant for 18 years, generally raises about 60 cwt. to the acre, for which he obtains at the rate of \$16 per hundred.

Marketing Wheat—Information Wanted.

ALBION, June 4, 1853.

MR. EDITOR:—You will not think it strange that I should indulge a kind of pleasing anticipation of an approaching harvest the most abundant in prospect with which the farmer has been greeted for many years, when I expect to return not only to the enjoyment of home and friends, but to engage in the ingathering of the rich product of that seed which my own hand has sown, and bear to the garner, with a thankful heart I trust, the increase which God hath given. And here I wish to acknowledge my indebtedness for the information which I have received on the subject of wheat-growing, as well as the many valuable lessons of instruction in other branches, as communicated through the columns of your invaluable paper. And he who thinks himself unable to take it, is certainly unacquainted with his best interest. So far as the expediency of raising crops is concerned, we have had line upon line and precept upon precept; and all who have obeyed the dictates thereof have not

failed to reap a rich reward. The greatest difficulty now seems to be, after we have succeeded in raising a good crop of wheat, to secure the most profitable method of disposing of it. And regarding you as the unbiassed friend of the farmer's best interest, and fully acquainted with the same, I would suggest the propriety of a communication touching this point, either by yourself or some of your able correspondents, in order that we may avail ourselves of the best possible means of obtaining the highest price for our wheat. We ask not for extortion or extravagance, but would observe the true maxim, which is to live and let live. But as it now is, the majority of our farmers, in marketing their wheat, feel that they have no rights to assert. And if they stop to inquire the price at all, it is merely by way of compliment. But are we, as the farmers of Michigan, willing to acknowledge ourselves so ignorant as to be incapable of judging for ourselves with regard to the price of wheat? Is there not enterprise enough among us to defend our own granaries? I do not know but the wheat buyers are the most honest class of people in the world; and if so, I think it is our duty to endeavor to keep them so; and I know of no more effectual method than to remove the temptations which we have placed in their way. And if it is a fact that they are strictly honest on all occasions, and have not taken advantage of our ignorance, they deserve much credit. It is very possible that we have as a general thing received what could be afforded for our wheat; but I think it would be a source of satisfaction to know for ourselves whether this is the case or not. In order for this, it is necessary that we should have a thorough knowledge of the eastern and foreign markets; and I know not why our means of studying them, or forming ourselves into leagues, are not just as easy as the wheat buyers. Much has been said among us on this subject, and proposals made for associations to be formed and meetings held in each school district, not only to act upon this subject, but to take into account various other farming interests. But the lack seems to be just what I wish you to supply, which is, a starting-point. What interest can we promote, or branch of business encourage, that will be of more advantage to the State than that of farming. To this she owes her past unparalleled prosperity, and still depends upon it for her future well-being.

It is astonishing to see how the farmers have been taken in this spring on their wool. Many of us are compelled to take 40 cents on a contract, where we otherwise might have got from 50 to 60. In view of these facts, who will say that book-learning and newspaper-learning is not necessary for the farmer?

Yours, &c., A. R.

Our correspondent wishes to know from us "What is the best mode of marketing wheat by the

farmer?" It is a very important question, which is susceptible of various answers, according to the kind of wheat to be marketed, the location of the grower, and the facilities he may have for getting his grain to the nearest market.

The correct history of the sale of wheat in this State for the past year would show that the farmers have got on an average higher prices than usual, while the millers and buyers on an average have made less money than they have done in some years. It must be understood in the first place, that when a bushel of wheat is sold by the farmer to the buyer in one of the villages on the line of the railroads, the whole risk is not over, nor the expense neither. When a bushel of wheat is sold in Detroit for shipment to New York, it is generally sold with the understanding that it is to be put on board of the vessel free of all expense. To render the buyer safe, and give him a fair profit on his money, and pay him for his time and attention, and the freight, insurance, and other expenses incurred in the transportation of a bushel of wheat either to New York or Boston, (which are our ruling markets,) it is considered that there ought to be a difference of 23 to 25 cents between the price paid in New York and the price paid in Detroit. Whenever there is less, the buyer runs the risk of an advance in the market, which his sagacity or foresight enables him to foresee, but in which he may be and frequently is mistaken.

Now to get the bushel of wheat to Detroit requires a certain amount of labor, which has to be paid for, and also some risk in this present age, when a few clicks of the telegraph may cause either a rise or a fall of five or six cents in the price of a bushel of wheat in an afternoon. For instance, let us take Albion as an example. A farmer wants his money to use, and brings in a load of wheat which he sells at the price going there. The only way that he can tell whether he has been dealt fairly by, is by comparing what he has received for his load per bushel, with the prices paid that day in the market where he knows the greater part of the crop goes to find purchasers. If wheat is worth a dollar in Detroit, in Albion it will be worth that dollar less the expense of carrying it to Detroit, which is the nearest shipping place for export, and less the percentage for commission and storage.

But it is generally supposed that there are some seasons of the year peculiarly favorable to the sale of wheat. The experience of the last season completely proves the fallacy of this notion. Wheat really and intrinsically is of more value in the spring than in the fall: but when we look at the prices received by the farmer, we doubt very much, unless there is an unexpected rise from some cause over which neither he nor the buyer has any control, that he actually gets any more than the interest of

his money, beyond the price paid in the fall. First, the seller in the fall gets his cash in hand, and he sells all his wheat, without loss from vermin, or waste, or any other cause. The grain is not as dry, probably by a pound or two per bushel, as it will be in the spring. He has the use of his money; and the grain instead of absorbing the interest, is now paying him an interest, if he chooses to invest it either by improvements on his farm, or by loaning it out. On the other hand, wheat is like any other property to the holder—there are risks to be run in holding it, and every day it is kept it is worth so much the more on account of the accumulating interest which it must pay. For example, let us take a crop of wheat of 500 bushels on the first day of August last year, and, as was really the case, put the price in this city at 80 cents per bushel. During the month of August the price fluctuated from 80 to 85 cents, owing to reports from Great Britain of the state of the crops: then the reports came that foreign crops were better than was expected, and wheat was bought during Sept. at 75 to 77 cents. Afterwards the state of the crops came to be better understood, and the price of wheat went up to 90 and 92 cents, where it remained till the opening of navigation, since when the price has fluctuated from 96 cents to \$1. Now had Great Britain produced an average crop, it is altogether probable that wheat would not have been worth the 80 cents with the accumulated interest from the first of August. But we can easily see on a small lot like 500 bushels how much has been gained or how much has been lost by waiting:

500 bushels of wheat on 1st August, 1852.....	\$400 00
Interest on \$400 at 10 per cent. for 11 mos.....	36 66
	<hr/> \$436 66
500 bushels sold on 1st of July, 1853.....	\$500 00
Deduct interest at 10 per cent. on same grain if sold 11 months before.....	\$36 66
Deduct for loss, waste, and drying 5 per cent. of grain.....	25 00—61 66
	<hr/> \$438 34

We do not think that five per cent. on the grain is any too much to be allowed for drying and waste, it being only about three pounds per bushel. Many men could do much better with their money than ten per cent. in the course of twelve months, but that is considered a fair rate. From these facts it may be judged that when a fair, medium price can be obtained for a crop early in the season, as a general rule, most is made by selling it then; though there may contingencies happen which will tend to give those who reserve their grain a higher price; but there is also a risk that those who wait may have to take a lower one; while the chances are that they will at least lose the use of their ready money.

At the present time it is impossible to give the least advice as to what would be the proper time to market wheat during the coming year. Late ad-

vices from Great Britain state that the crops there have not as favorable an appearance as could be wished; and besides, there is in European politics at present a prospect of war, which, if it should occur, would have a tendency to add nearly one-half to the value of the grain crops throughout the United States, as the war would materially affect those countries from which large supplies of grain are derived.

If the farmer has to depend upon his own opinions alone for a choice of time for selling his produce, he ought to meet with his neighbors at least once a week, and consult the most reliable market reports in their reach.

Cultivation of Marshes.

[If any of our subscribers have had experience in the re-claiming of marshes, we shall be glad to hear from them an answer to the inquiries of Mr. Russel.—Ed.]

MR. JOHNSTONE:—I have commenced re-claiming a marsh, and am now going round-about fourteen acres of it with a ditch five feet wide and three feet deep. It is my intention to plow it this fall, but am somewhat at a loss to know how to construct a plow for the purpose, and would be glad to hear from some of your correspondents who have had some experience in the same kind of work. I should like to know what kind of properties the marsh muck contains, that I may have some idea of what kind of crops I could raise on it and whether I could raise hemp, oats and potatoes and other roots. My own opinion is that some of the greatest profits of the farmer may be taken from these lands if they are properly treated and kept dry.

I have a plan of my own for rigging my plow for work on the marsh, but there may be a better one, and I would therefore like to know it. My plan is to take a pair of cart or wagon wheels, and fix them to an axle about three feet longer than the axle of a wagon; then take a No. 4 plow, and after fixing it in the same manner as for breaking up a sod, only with the irons thinner and smoother on the edge, I mean to fasten the beam to the under side of the axle, and guaged so that the off wheel will run on the top of the furrow last plowed, and the off ox walk on the sod, thus keeping the team on solid ground while plowing.

If any one knows of a better plan than this, I should like to hear of it; and I am sure any information relative to a matter so important to many localities in our state will be well received.

I am of the opinion that White Clover rolled in well would grow strongly.

Can you tell me where the seed can be obtained?

Yours, SOLOMON RUSSEL.

COLUMBIA Jackson Co., June 27th, 1853.

[In the making of his ditch around his piece of marsh, Mr. Russel of course was guided by the po-

sition of the ground. If he could have made his ditch profitably four feet deep instead of three, and so the whole of the water would have been carried off, it would have been still better than three feet. Before being able to say what his marsh will produce, would it not be well to wait and see first the effect of his ditching process, and whether its waters do not arise from springs, which will require more draining than the ditch now made affords facilities for getting rid of. We do not know that his plan for plowing it can be much improved. White clover seed is dearer than red, but we are not sure that it would answer the purpose of subduing marsh grass so well as a good thick sowing of Timothy or Red-top; which by getting a good sward on to the marsh first, would effectually prepare it for more valuable crops, and give it time to sweeten. Marsh muck is generally very rich, being the remains of vegetables, which are only partially decomposed, and which as soon as the ground is drained, and the influence of the air and heat of the sun is allowed to be felt, are sure to give the same returns that may be obtained from any other richly manured soil. The water having only stored up and retained the fertilized particles of the annual deposits of vegetable matter for ages, undisturbed.]

Chess, a Remarkable Instance.

GENTS. EDITORS:—In reply to Mr. Markham I would say, that my conclusions are that cattle running upon wheat in a wet time crush and break the roots, which causes a partial abortion or blight and chess is the product. I have pastured wheat at two different times since I settled in this county, and in one instance had an abundance of chess where I had no other reason to suppose there would be any, the ground being new and seed clean. In the other instance there was but little chess, as I took good care to keep the stock out when the ground was wet.

Early in the spring of 1820, (not in the 16th century) I had occasion to cross one of my father's wheat fields on horseback, (in Northumberland Co., Pa.) The soil a heavy limestone clay, and the frost just out of the ground. I threw the rider off the fence—jumped the horse over and mounted him, and supposing that the faster I rode the less damage would be done, put him to full speed. At every jump the horse sunk into the wet soil nearly to the knees. On arriving at the opposite side of the field, I threw the top rail down and jumped into the road.

At harvest the wheat was very heavy and leaned, and had to be all cut in one direction. We had not made but two or three throughs, when some of the hands noticed a "streak of cheat" across the field and none in any other place. This reminded me of the stampede I made across it in the spring, and

on tracing the streak both ways it led direct to where I had entered and left the field. The upper rails of the fence still being down, and the tracks of the horse still visible and a bunch of chess in every track. Now I would respectfully ask Mr. M., to explain how the chess came there if it did not spring from the crushed wheat roots.

It is well known to observing farmers, that when corn is two or three feet high, if a stalk is cut partly off near the ground with the hoe and left standing, it will produce a perfect husk but no ear of corn. The husk will be filled with smut, sometimes a cob in the centre of the roll of smut, and in a few instances I have found a few grains of corn on the cob. This I think runs parallel with the transmutation of wheat to chess.

STRAWS.

Farming as a Business in England.

[A friend has permitted us to make some extracts from a letter, which have a bearing on the business of farming in Great Britain, and exhibits more fully the state of the people, and of opinions among the farming communities than anything we have read lately. The letter was written about two months ago, but we have been unable to find room for it before.—ED.]

STANTON-CUM BRANSBY,
Gainsboro', 3d mo. 12, 1853. }

It was always a great object with me to settle my sons on my own property, or at least somewhere near me. I hoped to see them English farmers—a condition of life under fair circumstances, by no means to be despised, and perhaps as conducive to health as any in the world. After all I have suffered of bereavements, it was every thing with me to place my sons under the most healthy influences. The English farmers, of good standing, do not work hard with their hands, but spend much time in the open air directing their laborers.

The disastrous state of times, however, prevented my making that headway which was necessary to gain a sufficiency for setting them up in the world. I had no means of helping them save by our united savings, and these were often nil at the end of the year—and sometimes a large loss in spite of all our efforts. Of course, my sons suffered from disappointment and hope long deferred, and there arose a tinge of discontent about them which was very natural, but which, nevertheless, made me very unhappy. As to disposing of our property or borrowing to set my sons up in farming, that did not appear a prudent step in the precarious state of the business. Indeed, I had in my life-time seen so many family fortunes dissipated, in setting up sons out of the main capital, that I laid it down as a principle to help mine as much as possible out of savings or income, but not on any account to touch the stock. From the first I deemed it my duty to

keep the little heritage together during my days, and by the time I have done with it, my children will have seen enough of the world to know how to use it, and it may then serve the same kind offices for them, that it is now serving for me—afford them the means of gliding comfortably down the declivity of life, without being troubled with the anxieties of the morrow.

In 1838, the year I left America, the Anti-corn-law league was formed (I think it was) and my English life since my return has been powerfully affected by the agitation, that has been constantly convulsing the country. When first I came here I looked back for twenty years and found the average price of wheat to have been 60s. the quarter, and as wheat is the staple of Bransby I made my calculations accordingly. Judge then of my disappointment when wheat came down to 35s. Under these circumstances the value of my property sunk yearly, and at one time it seemed as if value would go out altogether, as it did in many cases in Ireland.

During dear R.'s long illness we were hung up and could do nothing, tho' we were losing daily, because we never liked to contemplate a future in which he, poor fellow, was not likely to participate. After his departure I gave up my farm at Bransby to my next son James, and took to the smaller which was vacant by his brother's decease. Not because I liked the smaller farm, but because it was the only way I had of putting him into a comfortable home and any thing like a fair prospect. I should have preferred his trying his fortune in America, because the times were then so very desperate. But when James was fixed I had Franklin and John to provide for. Neither our property nor our farming afforded me the means of putting them in business. We could not save. We could not prosper on continual hope. There was nothing for it, but for Frank to grapple with the world as well as he might, and to try fortune once more in America. By the time that Frank had been one year in the States, James had been two at Bransby, and as the trial had not been very promising he concluded to join Frank. This movement set the floating capital of the Bransby farm at liberty, and they have now jointly bought a farm in Ohio with the money. John is still unprovided for, but with the blessing of Providence I hope to save something to put him forward.

I have been disappointed in settling my sons on farms in this country. I desired to do so, because of the superior healthiness of the climate. Thou may feel assured I am by no means in love with the commercial policy that has so unrighteously robbed me of the fruits of my labor—it has scattered my family as it has done thousands and tens of thousands of others. Providence that often overthrows the crafty designs of men has mercifully come to our aid. The discoveries of Australian and Califor-

nian gold have done wonders for the farming interests of England. The flood of gold that has flowed into the commercial world has altered the relative values of all produce. Gold has become cheap—a little while ago I had to give 14 lbs. of pork to get hold of 4s. 3d. in gold—a quarter of wheat to get hold of 35s. in gold. Now I get 45s. for my wheat, and 6s. worth of gold for my stone of pork. I have now a little left to pay tithes and taxes—a while ago I paid these out of capital, and if the production of gold goes on as it has began I see a bright day a-head for all the producing classes—the producers of manufactured cottons as well as the producers of corn. The world has acquired a vast purchasing force, and the invigorating influence is felt to the very ends of the earth. Our national debt will be easier paid—the interest more readily got hold of. Sir Rob't Peel added 40 per cent to the debt and interest, when he passed his celebrated money bill of 1819, and the severity of this measure he greatly increased by another bill in 1844, both calculated to make money scarce. The golden discoveries have blown all these measures to the winds, and delivered us from all the evils of a fettered currency. Free trade we may bear, but free trade and a fettered currency we could not have stood.—One of the evils we may stagger under, but not both. The great evil that now threatens these Islands is the flight of her people. When farming—the business of every people after all—was made a losing trade in these Islands, the young and the able took themselves to foreign lands to farm, and find the rural homes which were denied them in England—just as my sons have done; and the impetus having been given there is no knowing when or where it will stop. Our population is now decreasing faster than it ever increased. It is not that our people are learning to dig gold in such numbers, for by far the largest number proceed to the United States in the hope of finding farms. Selfishness, like vaulting ambition, often o'er leaps itself. It would not surprise me of the very means taken to maintain the supremacy of British manufacturers should prove their ruin.

It is well known that the great manufacturing marts cannot support—cannot maintain their own numbers—they must have constant re-inforcements from the agricultural districts to keep up the stock of people. It is by abundant and cheap labor that a country becomes pre-eminent in manufactures, and this abundant and cheap labor is virtually an agricultural product. But if the people continue to fly from the villages as they are now doing, where will be the prosperity of manufacturers. For a country to excel in manufactures it is first necessary that she should be agricultural. Ruin the country and the decline of the towns is not far distant. I do, however hope, for the sake of Old England that the

Exodus will be stayed. The reviving prices of agricultural produce may tempt the people to stay and cultivate the land. The doctrines of Malthus—where are they! The Free-traders soon found a cure for our population, in the principle of expulsion that exists in their system, and now that the gold regions have put forth their attractions, we are likely to assume the characteristic feature of a new country, and want people.

A few days ago one of our manufacturing aristocracy declared in a public meeting that there were two things that England could not do at the same time, carry on her vast manufacturing operations, and defend herself from foreign invasion—from the sheer want of men to do them. More men, in the very bloom of life, leave England every six months than are employed in the army, navy, and militia of Britain.

T. S.

Leached Ashes.

MR. EDITOR:—Wishing to obtain information relative to some matters connected with improvements in farming, and knowing of no other source from which it can readily be obtained than the *Farmer*, I venture to make a few inquiries.

I have a huge, unsightly pile of leached ashes, probably some thousands of bushels, on my premises, which has been there for some years; and it has been suggested to me that it would pay well to strew them over my farm. Now will you, or some of your numerous subscribers, give me some information as to the qualities of leached ashes, and what would be the best mode of applying them, and whether it will pay. My farm is what is called strong timbered land, and has been cleared from five to seventeen years. Some of the first improved has been cultivated in corn and wheat for about fourteen years, without being stocked down, and it still produces middling crops, although farmed after the old-fashioned skinning system. It is becoming evident, now, however, that manuring and a different management are necessary to further good success, or to raise crops that will pay.

Yellow Dock is rapidly increasing among us in this vicinity, although some have fought hard to conquer it, but as yet apparently with little effect. Some old farmers near here say they have watched it from boyhood, and think it makes little difference whether we consider it a friend or an enemy, for they never knew it to do them any material damage. A right understanding of this matter would be very useful. I have about one hundred acres improved, and I doubt whether \$20 a year would keep the dock plants from my farm. May I hope that some of those who have had experience with this pest will make it public through your columns and oblige

Yours,

E. C.

FAIRFIELD, 1853.

[E. C.'s letter would have appeared in our columns before, but that it got stowed away when the office of the *Farmer* was removed, on our taking possession, and we did not come across it till the present month. In reply to the inquiry as to whether any profitable use could be made of the heap of leached ashes which at present encumbers the ground, let us tell friend C. that we think it a bank on which he can draw and obtain some first-rate discounts. We have known leached ashes sold at the rate of 8 cents per bushel, to apply to light soils; and we ourselves have paid at that rate to soap-boilers for a quantity of them to apply to the potato crop. During the present fall we think if E. C. would select out one of his pastures or hay-fields, and sow at the rate of thirty to forty bushels of these ashes per acre over the whole of it, and watch the result next spring, we think he will be satisfied that there is some virtue in his despised heap of ashes. Again: he probably cultivates corn and potatoes, and as he himself admits, now obtains only a middling crop. Let us suggest, that he draws every particle of manure that his cattle and live stock make this winter, on to his field, where his corn or his potatoes are to be planted, and let him mix with his manure load for load of the despised heap of ashes in one large heap: in the spring let him spread the manure thus made over the field where his corn or his potatoes are to grow, and we shall be glad to hear of the result. If he can procure lime readily and cheaply, and will add a couple of bushels, or even one to every load of manure, the compost heap will be still better, and E. C. himself will be able to tell whether there is any efficacy in ashes, if he will leave a ridge or two without any application, so that he may be able to see with his own eyes that the skinning system won't pay now-a-days.

As to the Yellow Dock, we believe it to be a very great injury to allow it to spread over any farm or field, and it ought to be eradicated as soon as possible: this can only be done by deep plowing, and by watching the appearance of the leaves on the top of the ground, and cutting them up with a sharp hoe a little below the ground.

The following letter, written by a farmer of Ohio last year, giving his experience with leached ashes on wheat, shows in a satisfactory manner their effect on the wheat crop:

MESSRS. EDITORS:—In the fall of 1850 I tried an experiment of putting leached ashes on wheat, which convinced me that they were of great value on said crop. After I had my ground plowed, which was intended for the reception of the seed, I hauled on the ashes broadcast, about one two-horse wagon-load to every four square rods. I sowed about half of the field the above way. Sowed one bushel and three pecks of wheat; dragged in the wheat on the unashed half of the field as on the ashed half, by going over lengthwise twice with the common tri-

angular harrow. Six or eight weeks after the wheat was up, the difference could be very easily detected. When harvest came, the result was, on the ashed part, clean straw, the berry more plump, and the ears longer; while the other was more or less struck with the rust. In fact, the wheat was one-third better where the leached ashes were applied. There are many potash makers in this country, who would thank the farmer for hauling the leached ashes out of their way. In some parts of the country they are purchased at from five to ten cents a bushel, and hauled eight and ten miles, and then applied with profit to crops.

Leaching Manure.

FRIEND EDITOR:—For many years I have paid attention to the subject of manures, and have been opposed to the very popular opinion, which I have noticed has been advanced even by scientific men, that loose, sandy, or porous land would leach manures. As I think this a very essential principle, whose truth ought to be examined, I hope you will allow me to say a few words on the subject, especially as I notice that some farmers are so devotedly attached to the notion, and have so firm a faith in its truth, that they prefer to let their manure remain in their yards, year after year, rather than run the risk of losing it by the leaching process. Now, sir, my opinion is, that if the land is ever so porous, if there are plants in the ground to take up the strength that is in the manure, that their roots will seize upon it and retain it at the top. For over twenty years my belief and my practice have been opposed to this notion of manure being leached, for the reason that it is contrary to nature, as all properties supporting vegetation have a natural and direct attraction upward.

Hudson, 1853.

Yours, LEVI TREADWELL.

[Mr. Treadwell is in part right. But it must be allowed that there are some soils, especially those of a certain gravelly nature, which are less retentive of manure than others which from their natural qualities more readily combine with the fertilizing properties of the manures that may be applied. Some of these soils are called hungry soils, and it is frequently the case that you see them covered with the white daisy, the mullen, and other worthless weeds that are the sure signs of poverty of soil. In these soils the manures do leach through, if not kept up to the top of the soil by pursuing that course of cropping which would be most likely to add to the quantity of fertile mould, and make a soil of such a nature that it would retain the fertile qualities at the surface. We have seen a piece of land of a very light nature—part of it was almost clear sand—brought in by the free use of clover and plaster, and top-dressings of manure, so that it was as valuable for pasture and for a hay crop as any part of a valuable farm of which it was a portion. But the course of cropping was suited to the

land. It was only plowed once in five years, and the benefit of the manure was retained by applying it to the grass crops as a top-dressing. When first plowed also, the sod was not more than three to four inches deep.—Ed.]

Washtenaw County Agricultural Society.

OFFICE OF THE SEC'Y OF WASHTENAW CO. A. AND H. Soc'y, }
July 12, 1853. }

EDITOR FARMER:—The Fifth Annual Exhibition of the W. Co. A. and H. Society will be held at Ypsilanti on the 11th, 12th, and 13th of October next.

Will you please publish the subjoined list of foreign articles, for which our Society has offered premiums. We hope the farmers and mechanics from other counties will bring in their stock and manufactures. Our list is small, owing to want of means, but we shall nevertheless look for a good representation from our sister counties.

Yours, very respectfully, L. DAVIS, Sec'y.

Best Durham Bull, four years old or over	\$5
do do Cow, do do	5
do Devon Bull,	5
do do Cow,	5
do Pair Working Oxen,	5
do Stallion, four years old or over,	5
do do three do do	3
do Breeding Mare, with foal at foot,	5
do Span Matched Horses,	5
do Single Horse,	3
do Spanish Merino Buck,	5
do Five Spanish Ewes,	5
do Saxony Buck,	5
do Five Saxony Ewes,	5
do Boar, one year old or over,	5
do Sow, do do	5
do Reaper and Mower,	5
do Wheel Drill,	5
do Plough for deep work,	3
do Specimen of Cheese over one year old,	3
do Ten pounds Butter,	3

JUDGES OF SHEEP IN THIS LIST:

J. A. Austin, Plymouth, Wayne County;
A. Parkhurst, Superior, Washtenaw County;
J. B. Boynton, Sylvan, do do

JUDGES OF OTHER STOCK IN THIS LIST:

D. M. Uhl, Washtenaw County;
Geo. E. Pomeroy, Lenawee County;
George Lazelle, Washtenaw do

MESSRS. EDITORS:—In the last number of the *Farmer* I noticed an article headed "Pasturing Wheat," in which the writer (A. B. Markham) seems to disbelieve the idea of wheat turning to chess by winter-killing or being trod on by cattle while the ground is wet. I do believe that either will turn wheat to chess, and think the fact can be sustained. I will mention an instance of winter-killed wheat turning to chess, which was the most conclusive proof of any that I ever saw, although I have noticed the same results from the same cause in more than fifty cases.

The case which I will mention was on a farm owned by my father in Lima, New York State. The lot sowed to wheat was broke up early, a corner of which was an old meadow and never plowed before, it being too wet, but by ditching was made dry enough for the plow. On this part of the field the wheat looked as promising in the fall as any, but the frost threw the ground on this part of the

field all into a honey-comb, and the result was very little wheat, but chess as thick as a man could cradle through.

This may not be any proof to Mr. Markham that wheat will turn to chess by winter-killing, but it may set him to thinking if he answers to the satisfaction of many of your subscribers how the chess came there, as the land was never plowed before, and there was no chess where the land did not heave.

He must narrow his views to a very small limit if he says there was no chess seed (if it comes from the seed) only in this corner of the field that produced the chess, or that the seed was in the ground in this part and nowhere else. Will Mr. Markham please answer the above, as I presume he can sustain the views at which he has hinted.

Like causes produce like effects. Now, if by breaking the tap-root of the wheat plant, by the ground's heaving by the frost, it naturally and universally produces chess. Why not if broken by any other agent, either man or beast, produce the same? He would fain make us believe that it was some supernatural power of the men of the sixteenth century, or of the beast of the present to produce chess from the wheat scion (if produced that way at all). Nature's laws are the same yesterday, to-day and to-morrow. She is the producer, and not man.

Respectfully yours,

DANIEL F. HUMPHREY.

SALINE, Washtenaw co., June 11, 1853.

Under-Draining.

MILAN, June 27.

MR. EDITOR:—Seeing an inquiry in the last number of the *Farmer*, made by Mr. Owen, of Romeo, for information respecting the method of under-draining wet land, if you will allow me room in your valuable journal, I will give him a little advice on the subject. He talked of draining with boards, as he looks at the trouble and expense of getting tiles to do it with. I would not recommend boards, as you say they would not last more than from five to ten years. In the month of April, 1843, I saw some land (I was then in England), it was in the parish of Deeping, St. James, on the borders of the fens, in the south of Lincolnshire. The summer was very wet, and was followed by scorching suns, so that the land was fairly baked up, and the cropping looked as if it was scalded, as you know, when land wants draining, it will always be either too wet or too dry.

Next comes my most difficult task, which is, to inform the above-named gentleman how we constructed a drain, and benefited the said land by so doing. The top of the drain was dug 14 inches wide, and of sufficient depth to clear the plow; then followed by a tool 14 inches in the blade, being 6 inches wide at the top, and running with a slant

to 2 inches at the bottom; next is an implement in a long shaft, or rather the shaft is fixed in a socket, at the end of which is fixed a piece of tin made into an open spout, about 18 inches long, and cramped almost into a rainbow shape for the purpose of running on the bottom to take out all the crumbs. Having thus completed it so far, we tied up some white thorn in bundles, about as thick as the calf of your leg, which was more plentiful than willows in that part—willows lasting longer than the thorn. We then commenced at the end from which we wanted the water to run by laying in the bundles with the brush of the second on the butts of the first, and so on till they finish at the other end; then, laying some straw on and afterwards filling in the earth, we put in six of these hollow drains cross-ways in a field 40 rods long, and we calculated it to last from 15 to 20 years. The crops next year more than twice paid for it. We have a piece of land in this place that I shall serve in the same way. The tool I mentioned, 6 inches at top by 2 at the bottom, can be made by any English blacksmith.

I would advise Mr. O. to converse with an old country man on the subject—a man out of Lincolnshire, Northamptonshire, Isle of Ely, Norfolk, or any part of the east of England—as he could tell and show him more in 20 minutes than a person can write in a day.

Yours, respectfully,
WM. REDMAN, Jr.

P.S.—My opinion is, that half or three-fourths of the sickness is caused by water standing on the land; as a proof of which I will now state that my father bought a farm in this place about eighteen months ago. It had been for sale for a long time, but no one would buy it because all had been sick who had previously there. There was a good fall for the water, and we got it ditched, so that it is now as healthy a place as can be. I would advise any persons seeking land not to be afraid of a place that is or has been under water, if there is but a good fall for it; and if all adopted this plan there would be but little of the fever and ague: it would be better for health and better for wealth. W. R.

On Storing Wheat at Home.

MAY 5, 1853.

MR. EDITOR:—Your readers request us to send in our communications so that they may be available to the readers the same season in which they are written. In compliance with this request and supposing that this communication will appear near harvest time, and thrashing will soon follow. I would suggest that farmers should find a storage for their crops about home, for the following reason, viz: In the summer of 1849, I moved on my farm and not being in perfect "fix," I concluded to take my crop to the mill when thrashed and avail myself of the offer of the miller, "no charge for stor-

age to a customer." Having agreed with the miller that I could come and get flour as I wanted, the grist was deposited in the mill, being about sixty bushels; and I occasionally made drafts of flour averaging about one barrel per month, and with the exceptions of two several instances brought my old barrel to be filled up.

It will be recollected by your readers that in the spring of 1850, flour rose to \$7 or \$7 50, and the miller having floured all the wheat he had in the mill, was unable to restore us the grist. I had drawn six barrels from my grist, and then was obliged to buy my bread the best way I could.—Time passed on and I hoped to receive the rest of my grist, when the miller had any to give; but he refuses to give any account of the particulars, and there is no proof in existence, but a small minute of the different loads as delivered by my man, who says he could swear that it was the identical account he received of the grist, when delivered, and that it was to be floured for my family use.

Now, if I bring a suit at law against the miller, he will allow me five shillings a bushel for my crop, (\$37.50) and charge me with six barrels of flour, at \$7.50 (\$45), so I find myself in rather a bad shift.

Would it not be better, Mr. Editor, to store our crop at home, and take it to mill as we wanted it, even if we had to put it away among "corn heaps, boys' beds, smoked hams, &c.," with a little confusion in the open garret.

The Cranberry.

Among the crops, large quantities of which are now exported from Michigan; but the exports of which might easily be trebled or quadrupled, the cranberry crop stands prominent. In the city of Detroit they have been very scarce, and during the latter part of the spring cranberries were not to be had for love or money.

The cranberry is a very easily cultivated fruit, and may generally occupy ground which cannot be profitably used for any other crop. As a general rule, bogs or swamp lands in which there is considerable sand are considered the most favorable places for the growth of this crop. If the swamp is situated so that it can be flowed with water at pleasure it is so much the better, because the flowing will prevent the growth of grass, or other plants among the cranberry plants, which if encouraged by proper treatment will soon overrun the swamp in which they are planted and drive out everything else.

To prepare the swamp for the planting of the cranberry, those most experienced in the culture of this crop, say the swamp should be first drained, and then plowed, or paired and burned, so as to destroy all vegetation in it, and if convenient a good coat of sand from three to six inches deep put all over it.

The cranberry will grow more vigorously, and will give much sooner a profitable return when the soil of the swamp is of itself sandy, when the plowing of it will answer every purpose. We need not suggest that all bushes, and undergrowth ought to be rooted out, and the land made as level as possible.

When the land is prepared, and it ought to be done in the fall as it is the most convenient, and can be done at much less expense than—the plants ought to be set out carefully in the following manner: Dig shallow holes in rows four feet apart, and about four feet or two feet from each other, as you think your supply of plants may hold out for the ground you have to cover. Take up your vines, that you mean to transplant, with a sod of earth attached to them, and place each sod of vines in the hole, pressing the earth well around each sod with your feet, as you lay them in. Be careful and break the vines as little as possible, as you want them to cover the whole ground as soon as they can be made to. If possible, and you can fix sluices to the ditches that take away the water from the swamp, shut them down, previous to the frost, so that whole patch may be flooded during the winter; this will be a decided advantage, as it prevents the frost from throwing out any of the plants, and when the water is let off in the spring, the plants are more apt to be healthy and in a fine state to grow. Besides it pretty effectually stops the growth of all other herbs that might interfere with the spread of the cranberry vines.

Flowing is a most important feature in the successful cultivation of the cranberry, as it not only keeps out all grass and weeds; but is the means most successfully used, to prevent the early frosts from injuring the berry before it gets perfectly ripe.

More attention, of late years, has been paid to the cultivation of the cranberry, as a crop, in the State of Massachusetts than anywhere else, and several cultivators who have given much attention to it, have made several reports on their mode of cultivation, and they nearly all concur, as a general principle, in what has been said above.

Mr. Thatcher, of Massachusetts, communicated a few years ago, to the Barnstable County Agricultural Society, his mode of cranberry culture, from which it appears that his plantation consisted of one and-a-half acres of land, about one-half of which was a sandy beach, and the remainder a low peat meadow, covered with water. A border of about six feet in width around the bog, and between the water and the beach, had a few cranberry vines on it, which had been closely fed off. In the spring the bog, was drained, and about one-eighth of an acre was covered three inches thick with sand.—This was set with cranberry vines, in rows two feet apart, and hoed four times that season and

once in the ensuing spring. The grass at first got the mastery, but was finally overcome and worked out by the cranberry vines. On the remainder of the bog vines were strewed, and trodden into the mud by the feet; these grew without any further care, except flowing in the winter. In the third fall, there were gathered from ten rods, where no sand had been spread, ten bushels of cranberries, while, on the part sanded, there were not more than as many quarts, though the latter finally got the advantage of the grass and did better.

Mr. Sullivan Bates, who has done much towards enlightening the public on the cultivation of the cranberry, is of the opinion that the plants are not obtained from the berry, he having repeatedly endeavored to grow them from the seed, and known others to do the same, but without success. He thinks manure is not necessary in the rows or hills, the greatest yield of the berry, in its wild state, being obtained from cold, sour land.

The plan of Capt. Hall, of Barnstable, many years since a noted cultivator of this fruit, was to grow the vines on sandy bogland, kept well drained. His tract comprised about four acres of a damp, sandy soil, surface nearly level, and, where not planted with cranberries, covered with bushes and swamp brush. The vines were set around on the borders of the tract, some on land elevated two or three feet above the general level of the surface. The vines grew most vigorously, and the berries were of a better quality and more abundant where the soil was most sandy and damp. In very dry seasons the cranberries are liable to be eaten and destroyed by worms, but in general they are a certain crop when managed with a due degree of skill. In transplanting, holes are dug four feet apart, deeper than for corn, and into these sods of vines are placed. The cranberry has creeping roots, spreads very rapidly, and in three years from the time of planting will entirely cover the ground. The soil should be prepared by plowing, harrowing and making it even, and marking it out in drills 18 or 20 inches apart. In two or three years the plants may be expected to run together and cover the whole soil. After being planted and hoed slightly, till the roots become clinched, further cultivation is unnecessary. When land is overgrown with bushes the latter must first be removed; but rushes will, in a few years, be destroyed by the cranberry vines themselves. The fall was considered by Capt. Hall the best time for transplanting, and when the land lay very low, or had a thick growth of weeds, &c., upon it, his plan was to spread over it a quantity of beach sand before planting, and no other cultivation or care was bestowed than keeping the land drained and cattle from injuring the vines.

Varieties.—Some persons enumerate three kinds—only one of which, sometimes called the *Bell*, is

thought to be capable of propagation in a dry soil. It grows in a wild state, on the borders of cranberry bogs, spreading its way to upland soils, and is much larger than the other kinds, in its wild state. Persons engaged in the cultivation of this fruit may begin with the *Bell*. By commencing with those which have been cultivated, or naturalized to a dry soil, they will much sooner accomplish their object, and with much less trouble and expense, as the plants multiply and increase abundantly. From one to two thousand plants enough may be obtained, in two or three years, to plant a very large surface of ground. From one hundred and fifty to four hundred bushels is the yield per acre.

A writer on domestic economy gives the following as the uses made of them; the modes of preserving them, and of preparing them for the table. The fruit is powerfully acid and astringent, with a peculiar flavor. They are much used for tarts, and sweetmeats, and the expressed juice is efficacious in fevers. It is also sometimes used to whiten silver coin and plate, by boiling them in the juice; the sharp acid dissolving the superficial particles of the copper alloy. They are esteemed good in restoring the appetite, and were formerly imagined to be efficacious in preventing pestilential diseases; in some instances, the juice has cured the distemper called ringworm, by applying externally.

To keep cranberries: gather them when quite dry, cork them closely in dry bottles, and place in a cool, dry cellar. They will also keep in bottles or in casks of water, the latter being the mode practiced in the north of Europe and in this country, and in which they are sent a long distance, without injury; the fruit is put in a perfect state, into tight barrels, filled with water, and headed up.

Cranberry jelly: make a very strong isinglass jelly; when cold, mix it with a double quantity of cranberry juice, pressed and strained; sweeten and boil it up, and make it into the desired shape, by straining into the proper vessels; use good white sugar, or the jelly will not be clear.

Cranberry and rice jelly: boil and press the fruit, strain the juice, and by degrees mix it with as much ground rice as will, when boiled, thicken to a jelly; boil it gently, stirring it, and sweeten to your taste; put it into a basin or form, and serve with cream or milk.

CUTTING DRAINS IN MARSHES.—Mr. Jason Clark, of Green Oak, having noticed the inquiry of L. D. Owen relative to a cheap mode of draining, writes that though he has had no practical experience on the subject himself, yet he has learned from a neighbor that the method practised in the salt marshes down East, is to cut with an instrument like a hay-knife two parallel lines in the direction and size of the drain in the position wanted, and then cutting across, with a hook pull out the wedges of turf and muck that the knife had cut.

Australian Wheat.

The cut represents a head of Australian Wheat, sent to us by Mr. D. D. Tooker of Jackson, whose letter accompanying it is given below. The cut is only two-thirds the size of the actual head, the engraver reducing it in that proportion. As measured, the head was fully five inches and a half long; and for compactness of grain it is only necessary to refer to the cut to see how the grain is packed on to the stem. The head sent us was not ripe, and the grain on it was somewhat shriveled, but the size of the grain we have never seen excelled. But Mr. Tooker's letter will speak for itself: it is as follows:

MESSRS. EDITORS:—The crop of "Australian" is already harvested, and will be threshed as soon as possible. It will turn out about thirty bushels to the acre, although I did not sow it thick enough by at least one-third. I think forty bushels of this wheat can be raised to the acre as easy as twenty-five bushels of Flint wheat can be, with the same culture; but it requires two bushels of seed per acre, if sown broadcast and dragged in the usual way; and if drilled in, one and a half bushels is sufficient. It should be sown by the 5th of September in this latitude, and will ripen about three days later than the White Flint sown the same day. My Flint wheat, in the same field with the Australian, side by side, will not turn out over twenty bushels per acre, and is considerably rusted, but not enough to injure the berry; while the straw of the Australian is perfectly bright and sound. The Australian is bearded, but very different from any other bearded wheat, as its beard grows straight up, and does not interfere in the least in handling. I think I have as light work among it as with any bald wheat, so far as the beard is concerned.

On examination of the head enclosed, you will find it contains 95 berries: the average of my whole crop is 60 berries to each head; while I have carefully examined a field of Soul's wheat, another of Bluestem, as well as Flint, and have been unable to find a head of either kind that contained over 46 berries, and the average of them was not cer-



tainly over 20 berries to the head. It is the size and beauty of its berry, its unparalleled productiveness, and the general hardiness of the plant, that will cause the Australian wheat to become the favorite of our Western farmers, as soon as it becomes fairly known. Yours, truly, D. D. TOOKER.

NAPOLKON, Jackson Co., Mich., July 14, 1853.

Inquiry as to Woad.

MR. ISHAM—Sir:—I have read in some book, I think from our township library, a description of the woad plant, and the manner of making indigo, &c., from it, and, if I am not mistaken, the writer described it as being a biennial plant, and that it stands green in the fields through the winter, uninjured by frost and snow, in some of the northern countries of Europe, and that cattle were sometimes grazed upon it during the winter to advantage, especially young cattle. Now, as I am disposed, like many of my neighbors to avoid all unnecessary hard labor, I wish to know why the woad plant may not be cultivated in these northern United States to advantage, for the purpose of feeding cattle during our long, cold winters, which consumes so great a share of the farmer's time and labor to accomplish. I understand that the plant will grow on any soil suitable for corn, and is cultivated in a similar manner in drills.

Will some one, who knows, let us into the secret, through "our paper," the *Michigan Farmer*, and oblige.

OBTRUDER.

FRANKLIN, April 25th, 1853.

[What "Obtruder" has read, relative to the woad plant is correct; but if the writer whose description of the plant he has read, has given him a correct idea of the cultivation of woad, he will have learned that to grow it with success, it needs land as rich as the best corn land; and almost as much work with the hoe or cultivator. The plant is biennial, and of course to secure a crop for winter, it would have to be sowed in the spring, occupying the land, and requiring the same labor that a fall crop would need, while all the benefit, that would possibly be received from it, would be the satisfaction of seeing the young cattle wade up to their knees in snow in winter to secure a bite or two from the tops that were not covered. Our correspondent, we fear, would feel rather disappointed in his labor-saving operation, if after having taken the trouble to grow a winter crop for his young cattle, a heavy snow should happen to bury it out of sight for the two or three months of the year that he needed it the most.]

Learn as much as possible the experience of the skilful; man who depends on teaching himself, will be likely to receive very poor lessons,—or, as Dr. Franklin has it, he will find, "he has a fool for a master."

MICHIGAN FARMER.

ROBERT F. JOHNSTONE AND WARREN ISHAM, EDITORS.

DETROIT, AUGUST, 1853.

Back Subscriptions.

As the proprietors of the *Michigan Farmer*, are making every effort to render it worthy of the support of the agricultural community, both in the amount of information it furnishes and in the embellishments with which they illustrate it, and also in its mechanical execution, they feel it their duty to call on all those who are behind-hand with their subscriptions, or have unsettled accounts, for a settlement as soon as possible, to enable them to meet the increased expenses. The amounts of their accounts will be forwarded to all who are owing the *Farmer*; and we only add, that old accounts will be settled on the most liberal terms, and the sooner they are paid up, the more liberal we can afford to be. The total sum due, is very large, and if now paid, would enable us to add very materially to its utility and entertainment as an agricultural paper.

The Crops and the Prospects.

By the time this number of the *Farmer* reaches most of our subscribers, the harvest will be over, and the chief grain crop of Michigan will have been secured. Accounts from every county in the State where grain is grown, have reached us, and all concur in stating that the present crop in quantity and quality has never been exceeded in this State.

Besides the excellence of the crop, there has been no season, when there was a better prospect for remunerative prices. For quotations to show the rates at which articles of farm produce are now selling in the different markets, we refer to our market report, which is just as correct as the most extended means of information from all important places of export or of sale will permit it to be made; and we can affirm without boasting, that it is an honest, straight-forward and reliable report of the prices of the various articles quoted.

The war rumors from the eastern part of Europe, on which England and some of the western kingdoms of that continent have been accustomed to rely for large supplies of cheap grain, lead many to suppose, with much appearance of correctness, that we shall have not only a continuance of the present high prices, but also an advance. Every one knows how very uncertain politics are, and that it is impossible to say at what point the highest price will be reached; but it is better for the farmer, we conceive, to sell a little under the very highest rates than to hold on and wait till the turn comes, for come it must some time.

It must be allowed also that the crops in England,

France, and Belgium are not so promising the present year as usual, and that even if there should be no war, there is a fair prospect for the maintenance of prices at advanced rates, as the imports necessary to supply those countries, it is now said by the best authorities, must be larger than those of the past year.

VERY SENSIBLE AND VERY TRUE.—A subscriber, who exerts himself to promote the circulation of the *Farmer*, thus writes to us:—"It is true I have plenty of business of my own to attend to, but I believe that every subscriber should take a little interest in getting his neighbors to enjoy the benefits he himself enjoys, and that he will be amply repaid by the increased means it puts in the editor's hands. It is a fact that needs no argument, that the more we do for a paper connected with our own business the more it will do for us. Starve a paper, you will have nothing but a skeleton; for what can a man do without means? I care not how able the editor may be, the paper will rise or fall just as there is an interest exhibited by its friends and subscribers in extending its circulation."

WHEAT FLY.—Mr. Woodruff, of Brownstown, in this county, brought in a head or two of wheat from his crop for the purpose of showing us what was preying upon it in this vicinity. The heads of grain he left with us were filled with the little yellow maggot of the well known *WHEAT FLY*, *Cecydomia Triticæ*, which has been described by many writers on the enemies of wheat for the last twenty-five years. Between the covering of every grain in the heads examined, there was at least one of these orange-colored little maggots, in some of them two or three. These maggots are supposed to live on the juices which ought to go to the maturing of the grain, but which, in consequence of the depredations committed by this little robber, shrivels up and never fills. Dr. Harris gives a description of this insect in his treatise on insects injurious to vegetation.

WINTER FLAX.—M. Loon Falkensborf, the special commission of Russia at the London World's Fair, and an experimental agriculturist connected with the Russian Imperial Agricultural and Horticultural Societies, has recently forwarded to B. P. Johnson, Esq., the Secretary of the N. York State Agricultural Society, a variety of flax-seed which can be sown as a winter crop, as we sow winter grain, and which is far superior to the common flax, and much more silk-like and finer. The seed of this new variety is also much more valuable for the production of oil, being richer in oleaginous matter. The seed is said to stand any degree of cold well, and without injury; and the long period which it has to grow enables the plant to mature and produce a much larger crop than any other

known variety. Mr. Johnson has written to St. Petersburg for a supply of the seed.

CALHOUN CO. AGRICULTURAL SOCIETY.—We have received the premium list of the Calhoun Co. Agricultural Society, which is liberally made out. The fair is to be held at Marshall on the 28th and 29th days of September, and the annual address is to be delivered by B. F. Graves, Esq.

The committee of arrangements are Samuel Wormley, F. F. Craig, J. T. Vernor, jr., Charles B. Pratt, Horace Ladd and J. J. Bardwell.

Stephen Gilbert is appointed Marshal, and James Monroe and Chester Buckley Assistant-Marshals.

FINE WOOL.—Mr. A. L. Burke, of Berrien, left with us a fine sample of his full-blood Saxon wool, of which he has about 100 in his flock, and about 20 head of a cross between the Saxon and Merino. He cut from these about 475 lbs. of wool this year. A proof that he took good care to keep them in good condition through the winter.

CRESSEY'S MORGAN HORSE.—It will be noticed by the advertisement that Mr. Cressey's Morgan horse, which he claims to be a very fine animal for the improvement of the breed in this State, as being a cross between two of the most celebrated families of the Morgan stock of horses, namely, the Black-Hawk Morgan and the Gifford Morgan, will be for service a short time this fall in Oakland County, after which the owner is going to take him up into Flint, Genesee, and some of the northern counties, to allow the farmers of that section to examine for themselves the merits of this fine animal.

BULL FOR SALE.—It will be seen by the notice that the members of Huron Agricultural Society, of school district No. 6 of the township of Tecumseh, offer their Durham bull for sale, as they wish to make a change. This will afford a good opportunity for another society to obtain a valuable animal on reasonable terms.

AGRICULTURAL IMPLEMENTS.—Mr. Rogers of Ypsilanti, it will be seen by his advertisement, offers a fine assortment of agricultural implements to the farmers of Washtenaw county.

ROADFELLOW'S PLOW.—Mr. Perry, of Grand Blanc, writes us that he has tried Roadfellow's Plow, with a jointer attached to it, and found it to work well, and that its operation is much superior to that of the single plow.

THE NEW YORK JOURNAL.—We have received a number of *The New York Journal*, a very neatly-illustrated periodical, which is furnished at the rate of three cents per number. The engravings and typographical execution are very fine.

THE COUNTRY GENTLEMAN.—This most excellent weekly, of which LUTHER TUCKER and J. J. THOMAS are the editors, has just completed its first half

year, and enters on its second volume with every prospect of success. The *Country Gentleman* ranks at the head of the most useful companions of the agricultural or rural citizen; and there is none in whose pages there is more real merit and useful knowledge, with less pretentious humbug, than there is in it.

ALMANACS FOR 1854.—Fowler and Wells have got out already two neat illustrated almanacs for 1854.

We ask attention to the advertisements of their *New Water-cure Journal* and *Phrenological Journal*, both periodicals that contain a great deal of instructive knowledge.

Our Yearly Advertisers.

The *Michigan Farmer* cannot spare much room from the body of the paper for advertisements, but on our cover will be found a number of those who find it for their interest to advertise with us yearly, and set before our seven thousand subscribers, and more than double that number of readers, the particular facilities they have for carrying on a certain kind of business, or of furnishing wares and merchandize at low and advantageous rates to purchasers. It is due to these patrons of the *Farmer* that we should call the attention of our readers to the advertisements, at least once in twelve months:

DRY GOODS AND CLOTHING.—Messrs. Holmes & Co., are well known throughout the State for their extensive assortments of goods, and the low rates at which they are furnished. Their establishment is well worth a visit, being fully equal in arrangement, in mode of transacting business, in cheapness, and in variety and richness of fabrics for sale to any like establishment, in any city west of the City of New York.

Messrs. Eagle & Elliot, offer a most extensive and varied assortment of clothing, and of American and imported cloths, and materials connected with the wholesale and retail business.

BOOTS AND SHOES.—Swift & Seymour, established a few doors from the *Farmer* office, have a very extensive stock of manufactured articles in their line.

Smith & Tyler have a very extensive establishment for the sale of all kinds of manufactured articles in their line, and all the findings required by the home manufacturers.

CABINET WARE.—Stevens & Zug, situated a little below the Michigan Exchange, have a very large stock of the choicest cabinet ware and furniture, which they manufacture themselves.

HATS AND CAPS.—Armstrong, located at 55 Woodward Avenue has a fine stock of hats, caps and other articles in that line of business.

JEWELRY.—L. P. Durkee has a large assortment of the newest styles of fashionable jewelry at the lowest rates.

BOOKS AND STATIONARY.—Richmond & Backus not only have a large assortment of school books, paper, &c., but have a large book-binding establishment, where the *Michigan Farmer*, or other periodicals may be put in shape for library use.

Kerr, Doughty & Lapham, are extensive wholesale publishers, who have recently opened a book publishing establishment in this city.

IMPAIRED SIGHT.—*Dr. Bigelow* is an oculist of acknowledged skill, who attends only to diseases of the eye and to cases of impaired vision.

PENSION AGENCY.—*Messrs. David Preston & Co.* have had a long experience in the business of securing the rights of those entitled to pensions or bounty land, and promise to pay prompt attention to those who wish them to examine their claims.

AGRICULTURAL IMPLEMENTS.—*D. O. & W. S. Penfield* keep up the stock of improved agricultural implements, of all the kinds used in this State. Their assortment of plows, harrows, seed sowers, rakes, is extensive, and they are making arrangements to increase it.

CARPETS.—The firm of *Beecher, Rice & Ketchum*, in the new Conant Block, on Jefferson Avenue, offer carpets, oil-cloths, window hangings, fabrics for curtains at as low rates as they can be procured in New York or Boston.

NURSERIES.

Hubbard & Davis, whose nursery is situated at the foot of Fort street, just out of the limits of Detroit city, have a large and extensive nursery of young and thrifty trees, many of them have been imported from France and England, on their own account, during the past winter.

J. C. Holmes, has an extensive nursery situated a little distance from the City Hall, on Michigan avenue. The varieties of fruit, cultivated by him and offered for sale, are numerous, and very choice.

E. G. Mixer & Co., have a very large and extensive nursery at Elmwood, just above the turnpike gate, on the Hamtramck road. Messrs. Mixer & Co. have also a large and extensive range of green-houses, and the most numerous collection of green-house and ornamental plants in the State.

Wm. Adair has also a fine and thrifty nursery, to which he pays special attention. His assortment of choice roses and of shrubs and ornamental plants is large, and contains all that are usually cultivated as well as many new ones.

The New Gooseberry Rhubarb.

On the 21st, the Cincinnati Horticultural Society made the following report on the subject of this new variety of Rhubarb:

This new variety, which has been named the Gooseberry Rhubarb, is a seedling from the Victoria, and is said to be, like the namesake of its ancestor, remarkably prolific; and, although not as large as that of the Giant Rhubarb, it excels each of them in the healthy vigor of its appearance, and upon being brought to trial in due form, it was adjudged to be more agreeable to the taste; the acid of the plant in this variety being diminished without any diminution of the lively flavor which constitutes its chief excellence.

These qualities which entitle this variety of Rhubarb to a place among the good things for which we are indebted to our neighbors of Kentucky, justify the committee in recommending it to our Ohio cultivators, as being more economical in the kitchen, and more prolific in the garden, than the other varieties cultivated in this vicinity.

HORTICULTURAL DEPARTMENT.

S. B. NOBLE, EDITOR.

Horticulture—its importance.

The increased attention that is now being bestowed upon horticulture as an art, is a source of gratulation to all engaged in its pursuit, as well as those friendly to its advancement. There is no nation having advantages equal to our own.

The United States, extending as they do from Maine on the East washed by the Atlantic, to Oregon on the West, fanned by the breezes of the Pacific, from Lake Superior on the North to the Floridas on the South, including within its bounds every variety of soil with the advantages of every climate, afford ample facilities for the cultivation of everything calculated to gratify the sense and store the mind with useful knowledge, and supply all our wants. Such privileges are rarely bestowed upon nations, and none are more willing to improve what they have than we are. We are emphatically a go-a-head people travelling by steam with rail-road speed as is testified by the rapid strides we have been making for a few years past in the arts and sciences with a population unrivalled for their zeal and enterprise. No nation equals us in the possession of the raw material in variety, quality and quantity, and every advantage for manufacturing all things necessary to supply our own wants and to leave a large surplus for the furnishing thousands of the Old World.

That portion of our population engaged in agricultural and horticultural pursuits, are not a whit behind those engaged in the mechanic arts; with all the disadvantages with which they have had to contend, they have made advances in horticulture within a few years past unparalleled in the history of man.

It is reduced to a science. Chemistry applied to agriculture has done wonders; its advantages are acknowledged by all. The efforts that have been and are now being used for the diffusion of agricultural and horticultural science is the admiration of all.

Horticulture claims to be the oldest art among civilized men; the most innocent and delightful;—the most happy and useful pursuits in which man has ever been engaged. On it we are dependent for all the luxuries as well as the necessities of life. To participate in its labors tends to strengthen the mind and invigorate the body.

It is no marvel then that at the present time horticulture is looked upon as dignifying to man.—It is time that now and then an obscure one may be met with who scorns labor; such are mere lilliputian drones in the hive of nature, mere hangers on, and no more give character to our people as a whole, than a drop of water does to the Atlantic Ocean. Such should be looked upon with pity.

Let horticultural pursuits be looked upon in their proper light, and make use of the best sources of information within our reach, availing ourselves of the benefit of the various periodicals devoted exclusively to giving agricultural and horticultural science, and depend upon it, the art will soon eclipse all others, and be raised still higher in the estimation of the world. We must teach the youth of our country the dignity of labor, its importance to them as individuals, and to the nation at large.—When that is done we shall no longer see our large towns and cities thronged with mere *drones*. We should see them wending their way to the unimproved land of our Western States, where they would soon be raised to the dignity of men in their own estimation, and become producers and not merely consumers.

The St. Catharine's Plum.

The following account of a very prolific plum, much grown around the vicinity of Angers in France has been handed to us by Mr. Mixer, of this city, who takes it from the descriptive catalogue of the well known French nurseryman, M. Andre Leroy, of Angers.

There are in the world some favored countries that nature seems to take pleasure to load with its gifts. Among these countries we could certainly place the rich valley that the river Loire bathes in this part included between Tours and Angers, on a distance of about 100 miles. There all the trees have a luxuriance of vegetation that we scarcely meet with elsewhere. The tree which offers the most profit to the cultivators, and that without much trouble, is the St. Catharine plum tree. Indeed, the cultivation of this tree has taken place to such an extent that it is not easy to give a perfect idea of it.

In this rich and fertile valley, where the habitations are so near each other, that we could say there exists only between Angers and Tours a long street or faubourg extending from one of these cities to the other, the gardens are planted with this plum tree of St. Catharine.

If we cross this country in the month of March or April, when these plum trees are covered with blossoms, we are not astonished that it is said that Tours is the garden of France, and that Angers is the nursery.

This plum tree, as we shall shortly see, has spread from the valley to the hills, where it is as common now as in the valley.

This cultivation has taken a great extension in every soil which differs essentially from that of the Loire. This fact proves that this tree is not difficult as to the nature of the soil.

In this valley the ground is formed with slime that the river deposits every year by its overflowings for centuries. The soil is calcareous on the hills on the left bank, and schistose on the right, and in some parts argilo-silicious; and in each soil this plum tree grows well and produced abundant crops.

It is with the plum of this kind that we make these dried plums so renowned, known as the dried plums of Tours, and with which we make so large a trade both in the country and for exportation.

The quantity of plums we gather on a country of about 100 miles long and 50 broad is so considerable that it is not possible to establish its precise amount; but several cities, such as Angers, Saumur, Chinon, Bourgueil, Tours and others, make a commerce which every year produces several million dollars, which spread in the country, and bring a comfort that we do not meet with in the other localities where this same culture does not exist.

The St. Catharine plum tree is a tree of medium size, about 25 feet high; it grows well as pyramid and standard; the branches are long, slender, and little ramified; the shape is slender and meagre; on the whole length of the branches grow a good many buds, so near each other that on a branch of 3 feet long, there are very often from 50 to 60 plums.

It is easy to conceive the excessive abundance of the crop of a tree so loaded with fruit. The fertility of it is not equalled by any other kind, and no other kind is so advantageous for making stewed plums. It is under this latter form that this kind is furnished to the trade under the name of *Pruneaux de Tours*.

The fruit is of medium size, almost round, or rather obovate; a profound suture divides it in two parts in its length; the stem is slender, about three-quarters of an inch long, curved at its upper part, inserted in a small cavity; skin fine, pale yellow, and sometimes tinted with red on the sunny side, and lightly covered with a white bloom of great transparency; flesh yellowish, sometimes firm and adhering to the stone, very juicy, sugary and very agreeably flavored.

It ripens in September.

This kind, beyond its unrivalled merit as a preserved plum, has yet this advantage to be an excellent dessert fruit. Though it is not so good as the green gage for the latter use, it is nevertheless highly estimated.

Below is the means to dry this fruit.

We place the plums upon a round willow basket, about 2 feet in diameter and 2 inches depth, and put in it one row only; we place the baskets close together in an oven in which we have burned wood enough to wrinkle the plums; we take them out after twelve hours; we heat the oven again, increasing the heat, and we continue so till the plums become firm; then we press them between our fingers to flatten them, and we continue to do so till the desiccation be suitable. We take great care at each time that we take them out of the oven to remove those which are done, to place them together and prevent their being too dry. Finally, when they are done enough, we, for the last time, heat the oven as we should do to bake bread; we put the plums in the oven again until they swell and are ebullite, then we take them out: we leave the half heated; we place the plums in the oven again, and we leave them in all night. Then a white bloom covers them, and they become very beautiful; it is what we call giving the whitening. We sort them by sizes, and we make small baskets. We are obliged to put them eight or ten times in the oven.

If we wish to make what we call *pruneaux fourries* [furry plums], we take out the stone when they are about half done, we replace it by another plum equally without its stone, and we continue the cooking.

The St. Catharine plum tree produces regularly

and yearly, and when it is very young; so that after a few years, it fully pays its owner for the expenses of plantation. Not any other kind in our country is planted in so great a quantity, nor propagated in so large a number in the nurseries.

Apple Scions—Bad Seeds.

MR. JOHNSTONE:—I am now going to detail an experiment which may perhaps be new.

About three years ago, I sent to Old Connecticut for some apple scions from a favorite old tree that grew in my father's orchard. I directed my friend either to wax the ends and wrap them in a paper, or seal them air tight in a two ounce vial. The latter plan was adopted. Owing to a mistake in directing to the wrong Post Office, I did not get them until about three weeks after the time that they were due. I thought they would not grow, and concluded not to take them out of the office.—They were put away as *dead letters*, but being overlooked were not sent to Washington, and finally the Postmaster took them out and set them, and all but one lived and are growing finely. They must have been cut from the tree as much as seven weeks before they were set.

There is an evil under the sun, viz: sowing garden seeds that *prove* to be worthless; is there no remedy? Suppose you go back to the merchant who sold you the seed, he tells you he bought them for good seed and don't consider himself in anywise blameable, but *somebody* is to blame. Good seed under favorable circumstances will grow.—Now I would suggest as a remedy, that every one who finds *too late* that he has to do without his parsnips or his onions, or his ruta bagas for this year, should publish the facts as to who raised the seed, and of whom he bought them.

If you think this course would be just and prove beneficial, please to publish this.

I bought some *Dutch Parsnip* seed of Mr. D——, at Paw Paw, marked "Risley's seed *warranted*," I prepared my beds in the best manner, I know how; sowed the seed and not one plant come up.

Yours with respect.

S. A. BABBITT.

WAVERLY, Van Buren Co., Mich. June 20th, 1853.

Switch Willow Apple again.

JACKSON, July 11, 1853.

MESSRS. EDITORS:—When this name appeared in the *Farmer* it was thought quite likely some of your correspondents or readers who might be acquainted with its history, and also have it in bearing, would accede to your request by giving the information desired. But as no response has appeared, perhaps you will permit me to say a word in relation to it. But, first of all, let me say, we can scarcely be too diligent in guarding against new names, especially an addition of names without any addition of varieties. Now, as to this sort (Switch Willow), we are

told it comes from Ohio, and as there is in that State a sort somewhat extensively known by the name of "Willow," sometimes called "Willow Twig," it would seem more than probable that this is neither more nor less than that variety. By some of the fruit growers there it is regarded as a very valuable sort.

At the Fruit Growers' Convention, held at Columbus, Sept., 1847, Mr. S. Wood, of Jefferson co., "regarded it as valuable, being a great keeper and of good size; keeping quality being a desirable item with fruit cultivators on the river, as most fruits that keep well farther north decay early in winter when grown more south."

Mr. J. Wood, of Belmont co., "had long known this variety, and in his section it was regarded as among the most valuable, large orchards of it being yearly planted out on the Ohio river for growing fruit for the Southern market. Mr. Wood said Dr. Wilson's father brought the variety from New Jersey, and that it may be known under some other name and described." I will only add, that we hope and expect to have it in bearing within a year or two, when we may be able to learn something of its adaptation to this section.

Truly yours,

D. COOK.

GRAPES—A CHALLENGE.—Matthew Atmore of Pennfield Calhoun county, writes us that he is considerable of a grower of grapes, and he says, "Fancying that I have some knowledge of them, and experience in their cultivation, I hereby challenge any of my fellow citizens in the county of Calhoun, to produce as many grapes of as pure a quality as mine are this season. If any gentleman wishes to examine them, I shall be pleased to exhibit my crop to him, and to give him any information on the subject in my power. I should also be gratified if any of your numerous correspondents, Mr. Farmer, would favor me with their experience in the best method of making wine from them."

WHITE DAISIES.—The only and effectual cure of the white daisy is comprehended in two words—plough and manure. The mission of the white daisy seems to be, to force upon the attention of the farmer, the necessity of immediately replenishing the earth. Its appearance, indeed, is but a famishing cry of an impoverished soil for manure.—Let him answer the call earnestly, and I will guarantee that he will never entertain any fears of being "outsted" by an intervention on their part.

LIME DUSTER.—An English orchardist, whose orchard occupies fifty acres, protects his trees from caterpillars and other insects by shaking over the young foliage quicklime pulverized and sifted through a fine sieve. He puts the lime into a tin conical canister, perforated at one end, with a long handle. The time for using it is when the dew of the morning lies on the leaves, or whenever the leaves are damp. He has found it very effectual.

LADIES' DEPARTMENT.

Discouragements.

Mrs. Doolittle is completely discouraged, and so is Rose. They have tried so hard to make their home look pleasant without, as well as within; they have seen the fruit of their labor destroyed repeatedly, but still hopefully labored on till now; they have reasoned and coaxed and pleaded, in short done all that a gentle mother and daughter with willing hands and eloquent tongues could do, but all to no purpose. It is eighteen years since that rail fence was built around their house and garden, and there it stands yet. Stands? No. It has been in that half-reclining position almost ever since Rose can remember, and but for the props she and her mother have placed under the weakest corners, would have been flat long ago. Mr. Doolittle and the boys have so much to do at the barn and in the fields that they never have time to pay any attention to the door-yard fences, besides, they don't see but that it is well enough as it is; to be sure there are two or three places where the cattle can step over, but Dick will bring up that little tree-top on the next load of wood and put it across the lowest corner, and if anything jumps over the other places Rose and Towser can drive them out. Rufus "don't see anything in the yard that mother and Rose need make such a fuss about; there are a few little stubs of lilac bushes and other brush and trash that could never come to any good, and then that old burr oak tree makes such a nice shady place for the calves it is a pity if they can't be allowed to lie under it when they please."

Poor Rose glances out at her "little stubs of lilacs," her broken snow-ball bush and her well browsed roses and honey-suckle. Two great tears are in her eyes, but she knows that crying will do no good, so she presses them back and sews away very industriously at the shirt she is making for Rufus. Mrs. Doolittle is stitching on a coat collar; she does not look out, but she looks back, back to the commencement of her life on that pleasant farm—for it was pleasant to her once, a very paradise to her loving hopeful heart. She remembered how it looked when William took her to see it the week before they were married. The house was there, a plain frame house, and a little garden patch enclosed with a brush fence, and that was all the improvement. But they had many plans for the future, and they sat together under that oak tree before the house and talked them all over.—What a pleasant day that was, and how much they both enjoyed in anticipation of the happy future. A few weeks saw them comfortably settled on the new farm; the brush fence soon disappeared, the clearing was enlarged and new rails of William's own splitting were placed in piles around what was

to be the circumference of their garden and doorway. How proud the young wife was of her industrious husband. She went out to see him place the first rails and he told her then that he was in a great hurry and had not time to prepare blocks to put under the fence corners, but he did not intend that this should stand long, it was only temporary, and she should have a handsome white paling around her house and garden in less than five years. So Mary went to work devising and executing plans for the improvement of her yard, and every spring she busied herself in storing her garden beds with choice and useful plants. The country was new and pretty shrubbery was scarce, but each year some kind friend would add to her little stock, till all the way from the door to the fence on each side of the walk was a row of thrifty young lilacs alternating with roses and wax berry bushes. Then there arose various odd shaped little hillocks crowned with blooming plants, surrounding the old oak, but leaving space enough within the circle beneath its shade for the mother and her little ones to sit on the green grass in the pleasant summer afternoons. The father never had time to sit there with them. He was a very industrious man and when his regular day's work was done he always had an axe helve to make, or an ox-yoke to shave out, or handles to prepare for his hoes and rakes. It is true he made great use of the front yard, for the shaving-horse and grind stone were there; and there also, near the bars (for they had no gate,) was the great iron kettle in which potatoes and pumpkins were boiled for the hogs. This was so arranged as to be convenient to the barn which was built across the road. Mrs. Doolittle remonstrated against having the grindstone so near her favorite bed of peonies, but there was a stump on which one end of the axle would turn so nicely, and William had driven the stake for the other before she discovered what he was at—he had not time to hunt up another place then but would move it when he built the new fence. Then the shaving-horse must be near the grindstone and there was no other way but it must stand astride the long bed of pinks and sweet-williams, Mary had planted near the fence. She pleaded for her flowers, but William thought the new fence would have to come nearer the house than the old one, and the pinks would be thrown into the street in that case, so they might as well be destroyed in one way as another; and what with the father's daily labors there, and the trampling of little ones who loved to ride that horse because it would not kick up like the black colt, they were destroyed, sure enough. Many of the young lilacs too, which grew temptingly near, were broken off for whips to aid these young equestrians in their exercises. The mother could not always be watching them, she was too much burdened with her household cares.

As soon as Rose was old enough she was of great service in the sewing department of the family.—She was her father's own child as far as industrious habits went, but she loved flowers even more than her mother did. Almost the only recreation she allowed herself was to work among the flower beds and shrubbery of that little front yard. One quarter of it had long since been given up as a kind of public work-shop and visiting-ground, for many of the neighbors come there between sunset and dark to grind their tools and chat with Mr. Doolittle, while he shaved his helves and ox-yokes. The oak tree grew on the same side of the walk, and in spite of all that Rose and her mother could say or do the boys would carry chips and shavings within the flower circle, run over the pretty mounds she had made and romp and wrestle among her choicest plants. They would be there because their father said they must play near him where he could see if they got into mischief! But the other side of the walk was for a long time sacred from all innovations. There bloomed daffodils and snow-drops and lilies, but the pride of Rose was a beautiful snow-ball bush which a friend had given her, and which she had planted in the centre of the square. There was a pretty bed of China pinks too, near the bars, which she prized very highly, but on coming home from school one day she found it covered with three large stones on which the caldron kettle was placed with a brisk fire burning under it. The pinks were ruined and so was everything else that grew near. Rufus and his father said they found nothing growing there but a parcel of young mulleins that ought to be burned up before they went to seed. It was necessary the kettle should be there to save them the trouble of going around the house for every pailful of hog feed.

Rose could not help shedding a few tears for her pinks, but she consoled herself with the thought that she still had many pretty flowers left, and her precious snow-ball besides. Time went on; no new fence was built, and the old one began to show signs of decay. Pigs were often found in the garden, and cows and calves in the door-yard. Then such work as the boys and Towser made driving them out, trampling on the beds, breaking down the shrubbery, and doing more mischief than the cattle themselves! Mrs. Doolittle entreated her husband to repair the fences, but he had not time just then, besides he was going to build a new one soon. Now that the boys were large enough to help him in the fields he could not have them spending their time about the house and garden; Rose might keep Towser there to drive out the hogs and cattle if any came in. But even the industrious little Rose could not sit up all night to watch her flowers much as she loved them, and the consequence was that her lilacs were browsed to 'stubs,' as her brother

called them; her lilies and daffodils trampled into the earth, and, to crown all, she awoke one morning and saw the crumple-horned cow wreathing her head with that beautiful snow-ball bush! Rose had felt secure of that, because it had escaped so long, but there stood old Brindle with its slender branches twisted around her horns and the snowy blossoms waving and dancing about her neck and ears with most unwonted energy. It was too late to save her tree, so Rose could only cry; her brothers laughed, and her father called her foolish for caring so much about a bush, and said he would bring her a great branch of dog-wood blossoms when he came up from his work at noon.

As I said before Mrs. Doolittle and Rose are completely discouraged about the door-yard. While the mother is looking back over her past experience with a kind of patient melancholy depicted on her countenance, the daughter is thinking of a paragraph she lately read in an agricultural paper where the writer said that when traveling through the country he always noticed the door yards, for by them he could form a fair estimate of the taste and refinement of the female members of the family; and she is wondering if George Brandon does not think so too, for it is nearly a month since he was there—indeed she has not seen him since the hogs ran against him in trying to get through the bars before he did. And now the blinding tears are filling her eyes, and rolling rapidly down her cheeks. She cannot sew; she turns to the window, and as she gazes out upon the cheerless prospect she does not wonder that her young friends shun their house, and are always happier to see her anywhere else than at her own home. The bars are seldom put up now for what is the use of troubling about them when the fence is down in so many places? The pigs have free ingress and the calves lie undisturbed under the old oak tree. Towser has lost his ambition and never thinks of opening his mouth at the pigs unless they venture too near his cool retreat under the front door-step.

Rose looks at her ruined flower-beds and broken shrubbery, and then at the grindstone, the shaving horse and the smoking caldron, and wonders again if George Brandon has not read that piece in the *Farmer*, and made up his mind that she has neither taste nor refinement. Poor Rose! I hope George will read this, or else that some good friend will tell him how it is, for I would like to see our drooping Rose transplanted into a more congenial soil.

L.

BROILED POTATOES.—Cut cold boiled potatoes in slices lengthwise, quarter of an inch thick; dip each slice in wheat flour, and lay them on a gridiron over a bright fire of coals; when both sides are browned nicely, take them on a hot dish, add a bit of butter, pepper and salt to taste, and serve hot.

Household Economy.

An experienced housekeeper, who has had much occasion in former years to refer to L. M. Child's 'Frugal Housewife,' as the best work extant on household economy, among a number of failures in the rules there given, has practically tested the utility of the following, which have been found valuable.

If you happen to live in a house which has marble fire-places, never wash them with suds: this, in time destroys the polish. They should be dusted; the spots taken off with a nice oiled cloth, and then rubbed dry with a soft rag.

If you wish to preserve fine teeth, always clean them thoroughly after you have eaten your last meal at night. We have preserved half decayed teeth many years, by washing them after every meal and rubbing them once a day with fresh charcoal from the fire.

About the last of May or the first of June, the little millers, which lay moth eggs begin to appear. Therefore brush all your woollens and pack them away in a dark place, covered with linen. They should be well wrapped in linen. This is easy and very efficacious. The same book recommends tobacco, as repulsive to moths—but it failed entirely on trial. Solid camphor succeeded well.

If you have a strip of land, do not throw away suds. They are good manure for bushes and young plants.

Suet keeps good all the year round, if chopped and packed down in a stone jar, covered with molasses. Mince pie meat may be equally well preserved if boiled, chopped, and similarly packed.

Do not let knives be dropped in hot dish water. Thousands of dollars worth of knife-handles are spoiled every year, by carelessness in this particular.

Straw-beds are much better for being boxed at the sides, in the same manner upholsters prepare sticks for feathers. If straw beds are stitched through like mattresses they are greatly improved, and need no stirring up.

The oftener carpets are shaken the longer they wear; the dirt that collects under them grinds out the threads. Do not have carpets swept oftener than is absolutely necessary; a broom wears it very much. Pick up shreds by hand, and brush crumbs into the dust-pan.

Fences operate in two ways—if good, they are a defence, if poor, an offence.

Willis says:—"Nature pours out her champagne of beauty twice a day—at morning and evening—and at noontide it is stale."

One pound of cotton, which formerly could only be spun into thread of 108 yards long, can now, by the application of steam, produce a thread of 197 miles in length.

TO CLEAN CARPETS.—Your carpets being first well beaten and freed from dust, tack it down to the floor; then mix half a pint of bullock's gall with two gallons of soft water; scrub it well with soap and with this gall mixture; let it remain till quite dry, and it will be perfectly cleansed and look like new, as the colors will be restored to their original brightness.

EDUCATIONAL.

Love the little ones.

The "model school ma'am" who dares not smile in presence of her pupils or speak to them of aught save what is found in the text-books, and the "model master" who walks like a soulless block or a heartless savage among his boys, whether at play or in the study room know but little of the happiness that arises from making others happy. If with all the perplexities of a teacher's life you would realize also some of its pleasures, love the little ones and permit them to love you.

I was once teaching in a certain district where it seemed my predecessor had been very severe. In passing around the room one day I came to a little fellow, whom I observed had been, sitting for some time with his head resting on this hand, apparently in a very contemplative mood. His Primary Geography was open before him, and putting my hand on his curly head, I said, "Johnny, is your lesson ready?" "Yes ma'am," said he promptly, but without moving. "What are you thinking about, Johnny, that keeps you so still?" I asked. He turned his large blue eyes full upon me and speaking very deliberately he called me by name and said, "Why dont you whip us to make us get our lessons?" I was surprised by the question and startled by the tone in which it was asked. "Why Johnny," said I, "you get your lessons as well as you can, don't you?" "Yes, we do for you, but Mr. Noonan always had to whip us when he taught here. Now Jimmy Bristol there," he continued, pointing to one of the larger boys, "you haven't struck him a lick yet, have you?" "No, indeed, why should I strike him? He always behaves well and has good lessons."

"Well, Mr. Noonan said he was the badest boy in school and never would learn, and I was just thinking what he had to do to him one day. He come along when Jimmy didn't see him, and yerked him over the bench backwards, and shook him by the coat collar awhile, and then gave him a push that sent him clear across the room. He fell on the corner of the stove, and it cut his head, and made it bleed so that the Master had to make brother Charles and Dick Bristol climb clear up to the rafters, to get cobwebs to stop the blood." "Cobwebs!" I exclaimed in surprise.

"Yes; just like them hanging up there now," and Johnny turned his great eyes upwards. There was no ceiling overhead, I had swept the joists when I entered on my duties there the week before, but the rafters were above my reach and the dusty drapery hung in heavy festoons along their whole length. Every eye in the school room had been turned upon us since the moment Johnny mentioned Jimmy Bristol's name, and I did not reprove them

but seized the opportunity, as I always like to every one of the kind, to turn their attention from the faults of their teacher to their own duties, and give them one of those familiar affectionate lectures that do children's hearts so much good. My little flock, (there were but seventeen) gathered close around me, Johnny rested his bright head against my side, one arm was around him, and with the other I held a little wild-eyed, gipsy-looking girl on my lap, while my remaining six girls and nine boys crowded as near as convenience would permit. I will venture to say that half hour was spent quite as profitable as it would have been over their books, and quite as pleasantly as if, instead of enquiring into Johnny's meditations, I had split his head on the stove, and sent Charles and Jimmy and Dick scampering up the rafters for cobwebs to stop the blood. I taught there seven months, but Mr. Noonan's legacies, the ferule, birch switches and cobwebs were of no use to me from that day.

The ferule I had used the day before, and on the hand of that same untamable little thing who now sat on my lap. What a trial it was! I had been actually afraid of the child she was such a little witch-like sprite; only seven years old, but with such wild eyes, quick motions, and that strange expression about her mouth, so childish and yet so mature. A smile on her face never lasted more than an instant. It was beautiful while it did stay, but in a moment came a look which said so plainly, "Nobody knows me." Dear child! I did not know her that day when she stood by me looking so patiently at the line of A, B, C's. One after another she repeated them correctly till about half-way down the line, and then there was a full stop. She knew the letter to which I pointed, but I might as well have undertaken to open the lips of one born dumb as hers. I spoke sharply to her, and she looked up at me with such a patient, resigned, yet defiant look that I thought a crisis had come, and to meet it I must resort to authority. I commanded her to say the letter; she was mute. I took my ferule, unclasped one of the little hands she had folded over her bosom, and "patted" it as hard as I cared to; that was not severely many a child would have screamed for less; she only raised those black, unreadable eyes to mine as coolly as though she would have said, "are you satisfied?" I punished her again, harder than before. Her strange eyes looked up at me still tearless; her lips were gently but firmly closed, and her thin, beautiful face neither flushed nor pale, but so calm, so incomprehensible. I was baffled completely. There she stood, her little spirit-like figure scarcely taller than my knee, her hand in mine, red with the ferule taps, but every feature and every limb as calm and still as though she were chiselled in marble. She had very dark hair, nearly black; it was too short for ringlets but lay in

little silky curls all over her head. I placed my hand upon her curls and looking into her eyes with a feeling I cannot express, I said gently, "Lizzie!" In spite of my efforts at self-control, tears came into my eyes. She saw them but without changing countenance in the least, and folding her hands again, she said quietly, "I'll say that letter now." She did say it, but not standing there on the floor. I took her in my lap; she threw her arms around my neck, gave me a kiss with one of her bright, fleeting smiles, then repeated her lesson with perfect composure, slid softly from my arms and went to her seat as demurely as though nothing had occurred.—She had conquered, and I was glad of it. Lizzie always sat on my lap to say her lessons after that; she loved me, but her affection was not obtrusive; a kiss, a quick clasp of those tiny restless arm, a flitting smile, and that was all. She told me once that her only reason for not saying that letter was because she "didn't want to," and not another word could I get from her about it. Some would have called her obstinate and felt it their duty to "beat it out of her," but I am convinced that tortures would scarcely have wrung that letter from her lip; and if they had neither teacher nor child would have been the better for it.

The truth was, I had no less than five A, B, C, pupils, and Lizzie being among the last who read, I had by that time become weary, perhaps careless, and did not show as much interest as she thought her due. She waited for me to do my part which I, forgetting, only thought of compelling her obedience. She felt that she was not to blame and therefore would not yield to punishment, but the moment she saw the right feeling in me she was ready to meet it. "As face answereth to face in a glass so doth the heart of man to his friend." Yes, and so do the hearts of children. I felt no loss of dignity in yielding to her, the little queen of self-control, but the memory of that little red hand and patient face was never pleasant to me—self-reproaches are disagreeable things, and in this instance I might have saved them all by doing at first what I did at last.

Love the little ones, Teachers, and let them love you. They need no teaching for that, only let them know that they may. L. OF ST. JOSEPH.

NOTE.—In justice to Michigan I ought, perhaps, to say that the School-house I have described was not within her borders. But the incidents are true to life, and may, I hope, have an influence in leading teachers to study human nature more, and the properties of the rod less. L.

Never keep animals on a short allowance—if you starve them they will surely starve you.

If you allow your animals to shiver, your fortune will be shivered in consequence; that is, the farmer that gives his cattle to the winds.

Ohio State trial of Reaping and Mowing Machines.

[The following notice of the trial of reaping and mowing machines before the Ohio State Board of Agriculture, is taken from the columns of the *Cleveland Daily Herald*, and is the best and most impartial we have seen of this interesting exhibition—which it was totally out of our power to attend ourselves.—Ed.]

The second Annual Exhibition of Reapers and Mowers, under the auspices of the Ohio State Board of Agriculture, took place at Wooster, on Wednesday and Thursday. Col. Medary, President of the Board; Hon. J. G. Gest, Secretary; and nearly all the members of the State Board were present. A respectable number of the most intelligent and enterprising agriculturists from various portions of Ohio were in attendance, and several Inventors and Manufacturers of Agricultural Implements from abroad. The occasion was one of marked interest; the weather was fine, and everything was conducted with fairness, good feeling, and gentlemanly deportment. It is to be regretted that a much larger number of farmers did not embrace the opportunity to witness the test of the labor-saving machines, but the exceedingly busy season of the year and scarcity of field laborers prevented many from attending. The Reapers and Mowers were all put to a practical test in different qualities of Wheat and Grass, each cutting an acre in the several fields, thus affording a fine opportunity to witness their operation and judge of their comparative merits.

Five Reapers and four Mowers were entered, the first prize being a Gold Medal of the value of \$50. On Wednesday the exhibition took place on the splendid farm of Mr. Stibbs, immediately adjoining the town of Wooster. The farm of 224 acres is most beautifully located on a gentle elevation overlooking the town and rich country adjacent, and is in a high state of cultivation, Mr. S. being not only a practical but a model farmer. His wheat, very heavy, was considerably lodged, and put the Reaping Machines to a hard test. They all cut the grain well, but none of them laid the gavels or sheaves as even as desirable. Even the lodged and tangled grain was pretty well cut, quite as well as could have been done with the common cradle, but in laying off by hand as well as by the Self-Rakers, the straw was a good deal scattered, and required close gleaning to prevent waste. The labor in binding, however, was no greater, if as great, as following the cradle. The men managing the Reapers appeared considerably excited, most of the horses unused to the machines, and in the hurry to cut an acre in the shortest time, the work was more slovenly performed than might have been done under more favorable circumstances. The acres were cut in from 37 to 42 minutes each, but the trial on the whole was not very satisfactory to the Judges and Farmers present.

The meadow of Mr. Stibbs was mainly timothy grass of the first season's mowing, very tall and heavy, and affording a fine field for the Mowing Machine, to operate in. Ketchum's Patent led off, and cut its acre well in 42 minutes. It worked without clogging, cut the grass clean and sufficiently close, and left it evenly spread so as to require no turning to cure perfectly. The Mower is compact and strong, and weighs about 750 pounds. The strength of the machine was put to a severe test in the meadow of Mr. S. It was drawn by a herculean span of horses on a rapid walk, and when in full

motion the fingers protecting the knives struck the point of a rock, solid in the ground, with such force as to suddenly stop the team and hold them on the second pull. Two of the fingers were slightly bent, but not enough to prevent the continued use of the Mower. In another instance the top of a stump in the way of the machine was literally cut off without injury to the knives. Manufactured at Buffalo; price \$110.

Manny's Patent Mower cut the second acre in 49 minutes. His machine is an adjustable Reaper and Mower, and took the first premium of \$50 for mowing at the great trial at Geneva, N. Y., last season. It is a simple and efficient machine, cutting the grass as well as the scythe, and leaving it in a good condition to cure. Like Ketchum's it works in all kinds of grass, and with two horses and one person will cut from ten to fifteen acres per day. Manny's machine is said to be the only successful combination of Reaper and Mower, but the test at Wooster did not show the adjustable machine to be equal to some single Reapers and Mowers. As a combined machine for farmers who are not able to purchase a Reaper and Mower both, it is just the thing. Manufactured at Freeport, Illinois; price \$125.

Castle's Patent Mower was next tested, and for the first few minutes worked beautifully. It cut evenly, close, and rapidly, but soon clogged and began to slip over. The knives clip together like shears, and seem liable to gum up and spring apart. It is an ingenious, simple geared, light Mower, and is said to work well on the plains about Urbana, the place of manufacture. The machine was taken from the ground before cutting its acre. The Mower of Allen, Mintier & Co., was tested for a few moments and withdrawn, owing to some defect.

Thursday morning the Mowing was resumed on the grand farm of Mr. Robison, consisting of 480 acres, also beautifully located on a eminence in full view of Wooster, and overlooking a great extent of the choicest agricultural country in Ohio. The good condition of the farm of Mr. R. is the best commentary on his industry, enterprize, and skill. The meadow selected had been in grass for years, the bottom generally fine and thick, in some portions clover, in others thin, wiry grass. Ketchum's Mower again led off, and performed its work to the satisfaction of everybody. The acre was cut in about half an hour. Manny's Mower followed cutting the acre in about the same time, and nearly as well. Castle's Mower again started admirably, but had to be stopped and tinkered often, and had not completed its acre before the judges, exhibitors and spectators adjourned to the Reaper test. Ketchum's Mower was unanimously awarded the first premium by the Committee. It took the first at the trial at Springfield Ohio, last year, but we confidently anticipated when the first swath was laid by Castle's Mower that Buckeye genius was about to win the prize. Improvements may yet be made in Castle's machine which will enable it to go through future contests as successfully as it now enters upon the trial. Ketchum's Mower is regarded as a nearly perfect machine, and is rapidly advancing in public favor. The past season five hundred were sold, and this season the manufacture of one thousand does not begin to keep pace with the demand.—The machine on the ground was purchased by Judge Musgrave, a member of the board from Crawford county, before the exhibition, and after the test it would no doubt have brought \$150 at

auction had it been for sale. No second premium we believe was awarded for Mowers.

The trial of Reapers on Thursday was much more satisfactory than on Wednesday. The wheat was even, stood well, and the ground quite rolling. All the Machines cut admirably, and laid the grain much better than the day previous. The first acre was cut by Seymour & Morgan's Patent for 1853, New York Reaper, in 31 minutes. This machine requires a man to drive and another to rake off the grain. The gavels are laid off at the side, and with great regularity, by an expert raker. It is worked with ease, has a light draught, and can cut from 15 to 20 acres per day, with one span of horses, and do the work better than is done by ordinary cradling. Manufactured at Brockport.

MANN'S Patent Adjustable Northern Illinois Reaper and Mower cut its acre of wheat well and rapidly, the grain being laid off at the side by a raker. This Reaper took the second prize of \$30 at the trial at Geneva N. Y., in competition with eleven other machines, and the first prize, a silver medal, at the Ohio State Fair. Over 300 of these machines were in use the past season, and the demand is daily increasing.

PALMER & WILLIAMS' Reaper and Self-Raker, 1853, patented in 1851, attracted much attention. It required but a single person to work it, as by an ingenious, yet simple arrangement, the grain is laid off at the side in gavels in such size as the driver chooses to deliver them. In partially lodged grain, Wednesday, an acre was cut in 42 minutes; in the standing wheat, Thursday, in 36 minutes. The delivery of the grain was very good on Thursday.—Manufactured at Brockport; price \$138.

The simplest constructed reaper on the ground was Hussey's Improved Patent by BALL, AUTMAN & Co., Canton Ohio. It does its work very rapidly, cuts clean, and is not liable to get out of repair.—A driver and raker are required, the gavels are laid off evenly in the rear, but it is necessary that the binders should follow the machine so as to remove the grain before the horses return for another clip. The acre of partially lodged grain was cut in 37 minutes; the standing on Thursday in 33 minutes. The Hussey Reaper has been tested for years, is popular with farmers, and finds a ready market.

Atkin's Automaton, or Self Raking Reaper and Mower, attracted the attention of everybody whenever in motion. It comes nearer to a human reaper than anything made with hands, and does its work fast and well. It was tried successfully in the harvest of 1852 in the vicinity of Chicago, and was awarded first premiums at several State and other Exhibitions. The striking feature of the machine is an automaton arm, terminating in a rake, which seizes the grain as the reaper moves along, and by a rotary movement lays the gavel off regularly at the side, then extending itself, returns to its work, reminding one strongly of the active intelligence exhibited by the power printing press in laying off the printed sheets. The Self Raker scatters the grain somewhat in disposing of the gavels, but not much more than the machine rakes by hand; and and it is less work to glean and bind after the Automaton than after the common cradle. It is the invention of Mr. ATKINS, an old millwright at Chicago, who has been bed-ridden for ten years and never saw his remarkable piece of mechanism in operation. The Automaton has been patented in

England. Price at Chicago \$175.00. It is not warranted as a Mower, but works very well it is said.

After a full and fair test of all the Reapers exhibited, the Committee, as we understand, unanimously awarded the first premium, a gold medal of the value of \$50, to Seymour & Morgan's New York Reaper. No second premium was awarded, the Committee being divided in opinion between Palmer & Williams' Reaper and Self Raker, and Hussey's Improved Patent Reaper, by Ball, Autman & Co. The world-famous Mc Cormick Reaper was not exhibited, the proprietor choosing to rest on his English laurels, which we believe have not been brightened by any American competition encountered since the London Fair.

Several improved Agricultural Implements for which no premiums had been offered were on the ground, among them a buggy-like Hay Rake ingeniously adapted to wheels so that the raker rode leisurely over the field smoking his pipe; Killam & Vallean's Patent Wheeled Cultivating Gang Plows, made at Scottsville, N. Y., said to be the "most useful improvement which has been made in plows since the issue of Wood's old patent;" and Borst's Improved Grain Drill, manufactured at Wadsworth, Medina county, and which took the first premium at the State Fair last fall. The price is \$50, and the demand is so increased that the manufacturers will dispose of 250 this season.

Questions and Answers.

OLIVET, May 24th, 1853.

MR. EDITOR:—I wish to ask whether small onions left in the ground where they are raised, that have survived the winter freezing, will bottom well, and become large and good if properly taken care of while growing? Or, will they go to seed and fail to have gave good bottoms in so doing? Has any subscriber of the *Farmer* succeeded in producing good potatoes in large quantities from seed-balls; and if so, how long did it take to do it? and where could they be found for planting another spring? How does water-lime differ from common lime? Is it a preparation of it, or is the stone from which it is burnt different from common lime-stone?

Why are our seasons so different from those of New York, that we have very wet spells here, while there the weather is neither too wet nor too dry?

Will yourselves, or some obliging correspondent offer answers to these questions, and also whether lime is beneficial on Prairie land? and also how much plaster should be sown per acre on clover, and when should it be sown?

Answers to these questions through the medium of your highly popular journal will much oblige.

A SUBSCRIBER.

1st. Any onions that may be left in the ground through the winter, and do not happen to be affected by the frost, if not taken up and transplanted will undoubtedly go to seed. They will not bottom as well as onions properly cultivated for a regular crop.

2d. We do not at present know of any Michigan

farmer that has succeeded in producing good potatoes in large quantities from seed; but we have seen and known potatoes to be raised from seed, and it is as easily done as raising plants from any other kind of seed. The mode is first to secure the seed from the potato balls in a perfectly ripe condition; sow it carefully in well prepared ground in the spring. In the fall there will be a crop of potatoes, but the tubers will be very small, and each plant will have a variety of its own. Select such of the kinds as you may be best pleased with, after an examination of the shape, or other qualities, and plant them in the same manner as you would any common potato, and you will secure a crop of the ordinary size; though in general they do not attain their full growth until the third crop.

3rd. Water-lime is obtained from particular kinds of impure limestones that contain certain proportions of siliceous and magnesia, to which the analysts ascribe the peculiar properties which make the substance valuable as a cement.

4th. We have lived in the State of New York some fifteen years, and have frequently found it both too hot and too dry there, as well it is here.—It may be allowed that Providence has ordered that there shall be varieties of climates, as well as of seasons? But why it is so, we refer our questioner to those who have studied and written on meteorology, among whom *Kaemtz* has written a most excellent work, and so has several other writers, named *Brocklesby*, *Dalton*, *Daniel*, *Garnier*, *Thompson*, *Lardner* and *Walker*, and others we cannot at present call to mind.

5th. We have had no experience relative to the application of lime to prairie lands, and therefore cannot say what the result would be. From the large amount of vegetable mould, of which their soil is composed, the dryness of the climate in which the prairies are generally situated, it may be presumed that lime would have a beneficial effect. But we should like to hear of some practice in that line ourselves.

6th. A bushel and a half or two bushels of plaster per acre may be sown on clover early in the spring, just after it has begun to grow. We always considered it the best practice to sow when the clover was a little wet, either with a shower, or with the morning dew.

The Potato Rot—its Cause—and its Remedy.

We are almost tired of hearing and reading of specifics for the potato disease, and of patent or secret remedies to cure the plague which seems to have fastened on this valuable and useful plant; and when we come across a heading like the above, it is apt to be passed by with a sort of expression of contempt. The following is valuable, and is taken from the columns of the *Boston Courier*, which pub-

lishes an interesting notice of a book written by Professor Bollman, at St. Petersburg, in Russia. The remedy is so simple, and there appears to be so much to recommend a trial of the process which is recommended, which consists simply in thoroughly drying the potatoes intended for seed in a kiln at a pretty high temperature, that there are few who cannot try it, on a small scale at least.

Mr. Bollman asserts, from actual experience, that *thoroughly dried potatoes* will always produce a crop free from disease. This discovery he made by accident, but confirmed it by repeated subsequent trials. He had contrived a potato-setter, which had the bad quality of destroying any sprouts that might be on the sets, and even of tearing away the rind. To harden the potatoes, so as to protect them against this accident, he resolved to dry them. In the spring of 1850, he placed a lot in a very hot room, and at the end of three weeks they were dry enough to plant. The potatoes came up well, and had no disease.

This, it is added, was looked upon as a mere accident; but his seed-potatoes having been tried again the next year, and again producing a perfectly sound crop, while the neighboring crops were all diseased, the Professor's attention was drawn to the phenomena, and he made a third trial in 1852. This time all his own stock of potatoes being exhausted, he was obliged to purchase his seed, which bore unmistakable marks of having formed part of a crop that had been severely diseased; some being quite rotten. After keeping them for about a month in a hot room, as before, he cut the largest potatoes into quarters, and the smallest into halves, and left them to dry another week. Accidentally the drying was carried so far that apprehensions were entertained of a very bad crop, if any. Contrary to expectation, however, the sets pushed promptly, and grew so fast that excellent young potatoes were dug three weeks earlier than usual.

This singular result, obtained in three successive years, led to inquiry as to whether any similar cases were on record. In the course of the investigation two other facts were elicited. It was discovered that Mr. Losovsky, of Witebsk, had for four years adopted the plan of drying his seed-potatoes, and that during that time there had been no disease on his estate. It was again an accident which led to the practice of this gentleman. Five years ago, while his potatoes were digging, he put one in his pocket, and on returning home threw it on his stove,* where it remained forgotten until the spring. Having then chanced to observe it, he had the curiosity to plant it, all dried up as it was, and obtained an abundant, healthy crop; since that time the practice of drying has been continued, and always with great success. Professor Bollman remarks that it is usual in Russia, in many places, to smoke-dry flax, wheat and rye; and in the west of Russia, experienced proprietors prefer, for seed, onions that have been kept over the winter in cottages without chimneys.

The second fact is this:—Mr. Wasilefsky, of Mo-

* For fear of misapprehension by some of our readers, we explain this reference to the stove, by the fact that the Russian stoves are built of brick, like our brick ovens, and not like our American iron stoves.—Ed.

hilleff, is in the habit of keeping potatoes all the year round, by storing them in the place where his hams are smoked. It happened that, in the spring of 1852, his seed potatoes, kept in the usual manner, were insufficient; and he made up the requisite quantity with some of those which had been for a month in the smoking place. These potatoes produced a capital crop, very little diseased, while at the same time the crop from the sets which were not smoke-dried was extensively attacked by disease. Professor Bollman is of opinion that there would have been no disease at all if the sets had been better dried. The temperature required to produce the desired result is not very clearly made out. Mr. Bollman's room, in which his first potatoes were dried, was heated to about 70 deg., and much higher. By way of experiment, he placed others in the chamber of the stove itself, where the thermometer stood at 136 deg., and more. He also ascertained that the vitality of the potato is not affected, even if the rind is charred.

A method so simple, rational and cheap, as is suggested above, cannot fail to recommend itself to the attention of every American farmer. If the remedy is efficacious in Russia, there seems no reason why it should fail in this country. We have ample proof in experience that the source of the disease is in the root itself, and not in any noxious quality of the soil or atmosphere from which it derives its nutriment.

A Suggestion to the Michigan State Agricultural Society.

MESSEURS. EDITORS:—You are no doubt aware that great dissatisfaction exists among the farmers, or at least many of them, in regard to the distribution of premiums at our State Fairs. To discuss whether they are right or wrong is not the object of my writing, but to suggest some method of removing the cause of complaint, and thus induce more harmony between the Society and the Farmer, who now feels that a prominent name is a passport to the favor of the judges. Would not this difficulty be removed were the judges to be entirely ignorant of names in connection with artists? Let all art, so known, be thrown out of competition, and everything would then be obliged to stand on its own merit. There may be some things which could not be brought under such restrictions, but those which are capable of being so would remove much of the dissatisfaction now existing, for it is wide spread, and consequently the Fair is regarded with little interest by many who were anxious for its establishment; and those who opposed it then, oppose it still more now. Three out of four of my acquaintance consider it to be of more expense than utility to the Farmer.

I know those who have taken products to the fair and sold them side by side with the premium list at the same prices, whose articles were not noticed in reports. Some of these say they will not be at the trouble and expense of taking things again. Others, more liberal, say, "Why should we mind it?—we cannot all get premiums. Let those

who have the name have the game! Our stock helps to swell the collection, and there is pleasure and profit enough to pay cost."

My sympathy is decidedly with the judges, for I think their task too severe a one to be envied; and unless there is some different regulation in regard to their responsibilities, I fear we shall not long be able to obtain those who are able to fulfil these stations. No one likes to bear such opprobrium as is often dealt out to them, however conscientiously they may have discharged their duties.

None will deny that a name will have influence, with those even who intend to be the most scrupulous in judgment; besides, how much easier it is to decide against one of whom we have never heard, and therefore know nothing, and in favor of one who has an influential character, than *vice versa*.

Mankind are not perfect in feelings or actions, and until they become so it will be folly to look for perfection in judgment. For the sake of the judges, as well as the farmers, I hope some arrangement will be made so that they will not have to bear the whole responsibility of inferior articles presented for their inspection. A fruitful source of this difficulty lies in every one's thinking they make the best butter or cheese, that their hens lay the best eggs, or that their stock is better than their neighbor's. I feel a deep interest in the State Fair, and know that it cannot do its whole good except it have the cooperation of the majority of our farmers. As a member of that society, but not a contributor, I desire it may go on in beauty and utility till none of the sister States shall eclipse us in their State Fairs. E. P. F. B.

We have made considerable enquiry, of individuals from different sections of the State, and gleaned from exchanges, from which we learn, that the apples will not exceed more than a fourth part of the usual crop. Peaches are in most locations abundant. Plums are less injured by the curculio than usual, and in many places a small crop is anticipated. Pears will produce this season a partial crop.

The citizens of the interior will thank us for calling their attention to BULLARD'S Panorama, of New York City, which the proprietor informs us, he is about to exhibit in different portions of the country. It is well worth a visit, and we can assure every one that the painting correctly represents the great city.

We would call the attention of our readers, to the advertisement of J. R. Fairbairn, on the cover of the Farmer. Mr. F. promises the cash for good produce. We say, give him a call.

Although in draining land thoroughly, your purse may be drained, yet the full crops that follow will soon fill it up again.

BINGHAM'S SHEARING FESTIVAL.—The shearing of the flock of Pure Merino Sheep of Alonzo L. Bingham, took place as was advertised, at the Hotel of James K. Hyde, Sudbury, Vt., on Wednesday and Thursday, June 1 and 2. The days were remarkably fine, and a large number of farmers from the Western States and New York, as well as those of Vermont, were present. The shearing of the sheep was superintended by a committee of disinterested gentlemen, under whose inspection every sheep was weighed after being shorn, and also its fleece. The utmost fairness was used, and an accurate account kept of the whole. We present below the report of the committee, which was kindly furnished us for publication:

Report of Committee.—The undersigned having been invited to conduct the public shearing of a flock of pure French Merinos, owned by Mr. A. L. Bingham of Cornwall, Vt., certify that of the *Eighty Ewes* shorn, fifteen have been imported the present year, and from the effects of their voyage, sheared less than others of the same weight of carcass; *twenty* were lambs dropped in February and March, and *twenty* in May and June, 1852; *twenty-four* were two year old Ewes, shorn last season; and *one* a 3 year old Ewe with her lamb, that gave the heaviest fleece in the flock, viz: 33 pounds. The lightest fleece shorn was *eleven pounds four ounces*. The total weight of carcass of the eighty sheep, after shearing, was 8,240½ lbs., making an average of 103 pounds. The total weight of wool sheared from the eighty sheep, was 1,344½ lbs., making an average weight of fleece of 16½ lbs.

GEO. B. CLARK, Leonardsville, N. Y.

JESSE HINES, Brandon, Vt.

JOHN LEWIS, Poultney, Vt.

D. H. PATCHEN, Westfield, N. Y.

CALEB M. DYER, Enfield, N. H.

JOHN GREGORY, Northfield, Vt.

C. D. SWEET, Shaftsbury, Vt.

Committee.

It is proper to state that the wool is unwashed, and that its usual shrinkage in cleansing for manufacturing, is *fifty-six per cent*. One two-year old buck sheared 30 lbs. 8 oz. of wool; weight of carcass 216 pounds.

AN OPINION ON HORSES AND SHEEP.—T. C. PETERS, the editor of the *Wool Grower and Stock Register*, in his last number issued, writes from Vermont, where he has been present at Bingham's sheep shearing Festival, as follows:

"From what I have been able to see and hear in the two visits which I have now made to Vermont, the Black Hawk and the Morgan are the two best breeds of horses in the Union. That there is not one full blooded ewe to a thousand driven out of the State by sheep pedlars. That the sheep are light colored until they undergo the 'Cornwall finish' process. That in some flocks valuable rams can be obtained at very high prices, but that very few are taken away by the sheep pedlars. And that certificates of pedigree in their hands are subjects for serious reflection, at least. And last,—I can make up as good a flock of ewes in my own State as can be bought in Vermont. And that it's a very great mistake to suppose that good sheep can be found nowhere but in Vermont."

Farm-Life Joys.

When the fragrant breath from nature's wreath
Rises on the morning air,
In early spring when sweetly sing
The birds, and the flowers bloom fair;
When the buds are out upon the boughs,
And the wild flowers spring below,
When the squirrel's chirp rings through the wood;
Oh! gaily forth I go.

Who shall say in the life of the farmer's wife
There is little the fancy to please!
Who does not love very much to rove
Mid streams and forest trees!
Through meadows gay to wend the way
To where the wild flowers bloom,
Or through the swaths of new mown hay,
Seek the raspberries' rich perfume.

And then before the cottage door,
Where the garden blossoms fair,
What joys may come unto that home
Through the fragrance in the air:
And to view the fields of waving grain
As the summer hastens on,
And the fruits that ripen one by one
Till autumn's nearly gone.

And the bright sunshine in autumn time
When the nuts fall from the trees,
And richest smiles through forest aisles
Glow from the brilliant leaves;
And golden loads from corn fields come,
Or from the orchard high,
The luscious fruits all gathered in
For the winter's rich supply.

As the evenings long of winter come
And all the "chores are done,"
Who would not spend with books and friend
The evening hours at home?
O who will say that on the farm
All's plodding weary toil?
For none more pleasant joys may have
Than the tillers of the soil.

FLORAL HILL.

Mrs. E. P. F. B.

List of State Fairs for 1853.

Vermont.....	Montpelier.....	September	13, 14, 15.
Kentucky.....	Lexington.....	"	13, 14, 15, 16, 17.
New York.....	Saratoga.....	"	20, 21, 22, 23.
Ohio.....	Dayton.....	"	20, 21, 22, 23.
Pennsylvania.....	Pittsburgh.....	"	27, 28, 29, 30.
Michigan.....	Detroit.....	"	28, 29, 30.
Wisconsin.....	Watertown.....	October	4, 5, 6, 7.
New Hampshire.....	".....	"	5, 6, 7.
Maryland.....	".....	"	25, 26, 27, 28.
Indiana.....	Lafayette.....	"	11, 12, 13, 14.
Virginia.....	Richmond.....	November	1, 2, 3.
Lower Canada, Board of Agriculture,			
Annual Exhibition.....	September		27 to 30.
Upper Canada.....	October		5 to 7.
Southern Central Ag. Society, Augusta,			
Georgia.....	"		17 to 20.

YPSILANTI UNION SEMINARY.—We refer our readers to the advertisement of the terms of this well conducted institution on another page. Applications for further information may be made to the President, or to O. H. Lee, Secretary.

PEPPERMINT.—If "Young Farmer," of Ypsilanti, will address a letter to Mr. J. Rodgers, of Ann Arbor, he will obtain all the information he desires about the cultivation of peppermint. Mr. R. has been some ten years engaged in the peppermint business, and is fully competent to do justice to the subject. He had intended to have given a detailed statement for this number, but a multiplicity of business prevented. We hope to hear from him at some future time.

The Markets.

Dennott, July 20, 1883.

There has been much fluctuation during the past month in all sorts of produce, and the tendency has been to advance.

CATTLE—In Cattle the rates have changed very little here. Butchers complain of a scarcity, but the rates continue to be 3½ to 3¾ cts. ▽ lb, live weight, and choice, nice Cattle bring 4 cts. In New York, Illinois and Iowa Cattle—sent through by Central Railroad via Dunkirk or Buffalo, in about ten days from Chicago, at an expense of from \$11 to \$12 ▽ head—bring about \$54 to \$60 ▽ head. These cattle are called common stock, and average about 6¼ @ 7 cwt. when dressed.

SHEEP—Are not plenty, and sell from \$2 to \$3 50, according to condition and weight.

CALVES—There is a wide range for Calves, and they bring all sorts of prices, according to size, from \$2 50 to \$10.

PORK—Not quite so high as it has been. Some fine hogs sold for \$6 the other day : \$5 50 to \$6 25 is the range.

EGGS—Are scarce and high. Bring 14 cents ▽ dozen by the quantity.

POULTRY—The only poultry coming in is chickens, which are worth 30 cents ▽ pair, and large fowls 50 cents.

BUTTER—This article is also scarce and high for this season. It sells for 14 a 15 cents.

CHEESE—A little more plenty at 6 a 7 cents ▽ lb.

CORN MEAL—Sells at 11s to 12s ▽ 100 lbs.

HAY—Is at all prices, from \$8 to \$14 ▽ ton.

FEED—Middlings sell by wholesale at \$1 ▽ 100 lb., and Bran at 5s 6d.

CLOVER SEED—Is worth \$5 50. Timothy \$2 45 to \$2 45 ▽ bushel.

FLOUR—The market in this city is thoroughly cleared of all the stock of last winter's Flour. Fresh ground is inquired for, and readily taken at \$4 25 @ 4 30. There was for a day or two, owing to advanced rates in the British Markets, that \$4 3½ was asked for fresh-ground flour, but it did not last. It must be admitted that prices, with the crops we have on hand, are very high, and are only sustained at the rates quoted, by the speculative feeling existing among foreign dealers, who may let down the prices at any moment; and such a decline will surely occur, if there is a prospect of peace being maintained in Europe. The price of Flour in Buffalo is \$4 35 to \$4 37½; and in New York and Boston Michigan superfine is quoted at \$4 37½ @ 5 25.

WHEAT—Pure white Wheat is scarce. Some of the new crop reached this city to-day, but it has not been put in the market yet. Wheat had been steadily advancing in this market previous to the arrival of the Franklin, and sales of cargoes were made here at 103 and 103½ cts. Since then none has been sold; but the price paid for wagon-loads has been 99 cents and \$1 ▽ bushel.

CORN—Continues to be scarce. It has sold for the last week at 50 cents, but an advance of two to four cents is expected, and it may be quoted at 60 cents here. In Chicago 54 to 55 cents are offered for cargoes.

OATS—Have declined the past month, and sold mostly at 38 cents; but latterly they have advanced to 40 cents, at which price they are now selling, with the prospect of a further rise.

SALT—Is plenty, and sells for 12½ cents per bag, and at 11s ▽ bbl.

POTATOES—Old Potatoes very scarce, and not to be had. New ones retail in the market at the rate of \$2 per bushel. Kentucky Potatoes are in market and sell at \$1 25 ▽ bushel.

WOOL—Wool has almost done coming in. The receipts in this market have been up to the present time about 220,000 lbs from the hands of farmers. The average rate at which this wool has been bought has been from 46a 15 cents. Many who contracted their fleeces in the winter, obtained rather better prices than those who waited for the market. The foreign markets do not seem to expect such a scarcity of wool as a good many talked about in the early spring. A writer for the British *Mark Lane Express*, says it is well understood, that though the supplies of wool from the colonies will not come forward in as good condition as usual, still the supplies will be quite equal to the wants of manufacturers.—The prices here have not undergone any change. Fine Saxon would be worth 60 cents; pure Merino, 50 to 54; and the several grades range from 38 to 48 cents, according to fineness and condition. Many of the lots that come on from day to day are coarse, and bring about 43 to 45 cents.

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NEW YORK CRYSTAL PALACE.

New York, May 31, 1883.

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In making this announcement, the Directors avail themselves of the opportunity to state that the building which they have erected, and the Exhibition which they have prepared, will, they believe, fully meet the just expectations of the public.

It is proper that it should be known that, in order to afford ample scope for the inventive talent and skill of our countrymen in machinery and agricultural implements, we have increased the size of the building by adding nearly one-fourth to its area, beyond what was originally contemplated, so that we have now for the purposes of exhibition two hundred thousand square feet, or nearly five acres.

Not limiting their plans to a display merely curious or attractive, the Directors have organized a department of Mineralogy and Geology, in which some of the best scientific talent of the country has been employed; and the foundation is thus laid of a most valuable national collection of the mineral resources of the country.

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The sole charge of the interior of the building, its division, arrangements, classification and police, has been confided to two officers of the Navy of the United States, Captain S. F. Dupont and C. H. Davis; and the sanction of the Government given to the appointment of these gentlemen, who have so much distinguished themselves in the special services in which they have been employed, affords proof of the confidence reposed and the interest felt by the highest authorities of the country, in the general objects of the enterprise.

These gentlemen have organized their department as follows:

J. M. Batchelder—Secretary of the Superintendent;
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The Directors have sensibly felt the confidence reposed in them by their fellow-citizens in all parts of the country; and they will continue to make every effort to satisfy their just expectations.

DIRECTORS:

Mortimer Livingston,
Alfred Fall,
August Belmont,
Alexander Hamilton, Jr.,
George L. Schuyler,
Elbert L. Anderson,
Henry R. Dunham,
W. C. H. Waddell,
Jacob A. Westervelt,
James A. Hamilton,
Philip Burrows,
Johnston Livingston,
Charles W. Foster,
Theodore Sedgwick,
William W. Stone,
William Whetten,
John Dunham,
William Kent,
Watts Sherman,
F. W. Edmonds,
Samuel Nicholson.

THEODORE SEDGWICK, President.

WM. WHETTEN, Vice-President, Treasurer, and Secretary.

L. C. STUART, Assistant Secretary.

Jul

BINGHAM'S SHEARING FESTIVAL.—The shearing of the flock of Pure Merino Sheep of Alonzo L. Bingham, took place as was advertised, at the Hotel of James K. Hyde, Sudbury, Vt., on Wednesday and Thursday, June 1 and 2. The days were remarkably fine, and a large number of farmers from the Western States and New York, as well as those of Vermont, were present. The shearing of the sheep was superintended by a committee of disinterested gentlemen, under whose inspection every sheep was weighed after being shorn, and also its fleece. The utmost fairness was used, and an accurate account kept of the whole. We present below the report of the committee, which was kindly furnished us for publication:

Report of Committee.—The undersigned having been invited to conduct the public shearing of a flock of pure French Merinos, owned by Mr. A. L. Bingham of Cornwall, Vt., certify that of the *Eighty Ewes* shorn, *fifteen* have been imported the present year, and from the effects of their voyage, sheared less than others of the same weight of carcass; *twenty* were lambs dropped in February and March, and *twenty* in May and June, 1852; *twenty-four* were two year old Ewes, shorn last season; and *one* a 3 year old Ewe with her lamb, that gave the heaviest fleece in the flock, viz: 33 pounds. The lightest fleece shorn was *eleven pounds four ounces*. The total weight of carcasses of the eighty sheep, after shearing, was 8,240½ lbs., making an average of 103 pounds. The total weight of wool sheared from the eighty sheep, was 1,344½ lbs., making an average weight of fleece of 16½ lbs.

GEO. B. CLARK, Leonardsville, N. Y.

JESSE HINES, Brandon, Vt.

JOHN LEWIS, Poultney, Vt.

D. H. PATCHEN, Westfield, N. Y.

CALEB M. DYER, Enfield, N. H.

JOHN GREGORY, Northfield, Vt.

C. D. SWEET, Shaftsbury, Vt.

Committee.

It is proper to state that the wool is unwashed, and that its usual shrinkage in cleansing for manufacturing, is *fifty-six per cent*. One two-year old buck sheared 30 lbs. 8 oz. of wool; weight of carcass 216 pounds.

AN OPINION ON HORSES AND SHEEP.—T. C. PETERS, the editor of the *Wool Grower and Stock Register*, in his last number issued, writes from Vermont, where he has been present at Bingham's sheep shearing Festival, as follows:

"From what I have been able to see and hear in the two visits which I have now made to Vermont, the Black Hawk and the Morgan are the two best breeds of horses in the Union. That there is not one full blooded ewe to a thousand driven out of the State by sheep pedlars. That the sheep are light colored until they undergo the "Cornwall finish" process. That in some flocks valuable rams can be obtained at very high prices, but that very few are taken away by the sheep pedlars. And that certificates of pedigree in their hands are subjects for serious reflection, at least. And last,—I can make up as good a flock of ewes in my own State as can be bought in Vermont. And that it's a very great mistake to suppose that good sheep can be found nowhere but in Vermont."

Farm-Life Joys.

When the fragrant breath from nature's wreath
Rises on the morning air,
In early spring when sweetly sing
The birds, and the flowers bloom fair;
When the buds are out upon the boughs,
And the wild flowers spring below,
When the squirrel's chirp rings through the wood;
Oh! gaily forth I go.

Who shall say in the life of the farmer's wife
There is little the fancy to please!
Who does not love very much to rove
Mid streams and forest trees!
Through meadows gay to wend the way
To where the wild flowers bloom,
Or through the swaths of new mown hay,
Seek the raspberries' rich perfume.

And then before the cottage door,
Where the garden blossoms fair,
What joys may come unto that home
Through the fragrance in the air:
And to view the fields of waving grain
As the summer hastens on,
And the fruits that ripen one by one
Till autumn's nearly gone.

And the bright sunshine in autumn time
When the nuts fall from the trees,
And richest smiles through forest aisles
Glow from the brilliant leaves;
And golden loads from corn fields come,
Or from the orchard high,
The luscious fruits all gathered in
For the winter's rich supply.

As the evenings long of winter come
And all the "chores are done,"
Who would not spend with books and friend
The evening hours at home?
O who will say that on the farm
All's plodding weary toil?
For none more pleasant joys may have
Than the tillers of the soil.

FLORAL HILL.

Mrs. E. P. F. B.

List of State Fairs for 1853.

Vermont.....	Montpelier.....	September	13, 14, 15.
Kentucky.....	Lexington.....	"	13, 14, 15, 17.
New York.....	Saratoga.....	"	20, 21, 22, 23.
Ohio.....	Dayton.....	"	30, 31, 22, 23.
Pennsylvania.....	Pittsburgh.....	"	27, 28, 29, 30.
Michigan.....	Detroit.....	"	28, 29, 30.
Wisconsin.....	Watertown.....	October	4, 5, 6, 7.
New Hampshire.....	.....	"	5, 6, 7.
Maryland.....	.....	"	25, 26, 27, 28.
Indiana.....	Lafayette.....	"	11, 12, 13, 14.
Virginia.....	Richmond.....	November	1, 2, 3.
Lower Canada, Board of Agriculture,	.....	.....	.....
Annual Exhibition.....	.....	September	27 to 30.
Upper Canada.....	.....	October	5 to 7.
Southern Central Ag. Society, Augusta,	.....	.....	.....
Georgia.....	.....	"	17 to 20.

YPSILANTI UNION SEMINARY.—We refer our readers to the advertisement of the terms of this well conducted institution on another page. Applications for further information may be made to the President, or to O. H. Lee, Secretary.

PEPPERMINT.—If "Young Farmer," of Ypsilanti, will address a letter to Mr. J. Rodgers, of Ann Arbor, he will obtain all the information he desires about the cultivation of peppermint. Mr. R. has been some ten years engaged in the peppermint business, and is fully competent to do justice to the subject. He had intended to have given a detailed statement for this number, but a multiplicity of business prevented. We hope to hear from him at some future time.

The Markets.

DETROIT, July 20, 1853.

There has been much fluctuation during the past month in all sorts of produce, and the tendency has been to advance.

CATTLE—In Cattle the rates have changed very little here. Butchers complain of a scarcity, but the rates continue to be 3½ to 3¾ cts. ♀ lb, live weight, and choice, nice Cattle bring 4 cts. In New York, Illinois and Iowa Cattle—sent through by Central Railroad via Dunkirk or Buffalo, in about ten days from Chicago, at an expense of from \$11 to \$12 ♀ head—bring about \$54 to \$60 ♀ head. These cattle are called common stock, and average about 6¾@7 cwt. when dressed.

SHEEP—Are not plenty, and sell from \$2 to \$3 50, according to condition and weight.

CALVES—There is a wide range for Calves, and they bring all sorts of prices, according to size, from \$2 50 to \$10.

PORK—Not quite so high as it has been. Some fine hogs sold for \$6 the other day: \$5 50 to \$6 25 is the range.

EGGS—Are scarce and high. Bring 14 cents ♀ dozen by the quantity.

POULTRY—The only poultry coming in is chickens, which are worth 30 cents ♀ pair, and large fowls 50 cents.

BUTTER—This article is also scarce and high for this season. It sells for 14 a 15 cents.

CHEESE—A little more plenty at 6 a 7 cents ♀ lb.

CORN MEAL—Sells at 11s to 12s ♀ 100 lbs.

HAY—Is at all prices, from \$3 to \$14 ♀ ton.

FEED—Middlings sell by wholesale at \$1 ♀ 100 lbs, and Bran at 5s 6d.

CLOVER SEED—Is worth \$5 50. Timothy \$2 45 to \$2 45 ♀ bushel.

FLOUR—The market in this city is thoroughly cleared of all the stock of last winter's Flour. Fresh ground is inquired for, and readily taken at \$1 25@4 30. There was for a day or two, owing to advanced rates in the British markets, that \$4 37½ was asked for fresh-ground flour, but it did not last. It must be admitted that prices, with the crops we have on hand, are very high, and are only sustained at the rates quoted, by the speculative feeling existing among foreign dealers, who may let down the prices at any moment; and such a decline will surely occur, if there is a prospect of peace being maintained in Europe. The price of Flour in Buffalo is \$4 25 to \$4 37½; and in New York and Boston Michigan superfine is quoted at \$4 37½@5 25.

WHEAT—Pure white Wheat is scarce. Some of the new crop reached this city to-day, but it has not been put in the market yet. Wheat had been steadily advancing in this market previous to the arrival of the Franklin, and sales of cargoes were made here at 103 and 103½. Since then none has been sold; but the price paid for wagon-loads has been 99 cents and \$1 ♀ bushel.

CORN—Continues to be scarce. It has sold for the last week at 56 cents, but an advance of two to four cents is expected, and it may be quoted at 60 cents here. In Chicago 54 to 55 cents are offered for cargoes.

OATS—Have declined the past month, and sold mostly at 38 cents; but latterly they have advanced to 40 cents, at which price they are now selling, with the prospect of a further rise.

SALT—Is plenty, and sells for 12½ cents per bag, and at 11s ♀ bbl.

POTATOES—Old Potatoes very scarce, and not to be had. New ones retail in the market at the rate of \$2 per bushel. Kentucky Potatoes are in market and sell at \$1 25 ♀ bushel.

WOOL—Wool has almost done coming in. The receipts in this market have been up to the present time about 220,000 lbs from the hands of farmers. The average rate at which this wool has been bought has been from 46 a 48 cents. Many who contracted their fleeces in the winter, obtained rather better prices than those who waited for the market. The foreign markets do not seem to expect such a scarcity of wool as a good many talked about in the early spring. A writer for the British *Maritime Express*, says it is well understood, that though the supplies of wool from the colonies will not come forward in as good condition as usual, still the supplies will be quite equal to the wants of manufacturers.—The prices here have not undergone any change. Fine Saxon would be worth 60 cents; pure Merino, 50 to 54; and the several grades range from 38 to 48 cents, according to fineness and condition. Many of the lots that come on from day to day are coarse, and bring about 43 to 45 cents.

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Alexander Hamilton, Jr.,	Theodore Sedgwick,
George L. Schuyler,	William W. Stone,
Elbert J. Anderson,	William Whetten,
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W. C. H. Wadwell,	William Kent,
Jacob A. Westervelt,	Watts Sherman,
James A. Hamilton,	F. W. Edmonds,

Samuel Nicholson.

THEODORE SEDGWICK, President.

WM. WHETTEN, Vice-President, Treasurer, and Secretary.

L. C. STUART, Assistant Secretary.

jul

MOORE'S UNRIVALED WHEAT DRILL.**IMPORTANT TO FARMERS!**

THE subscriber is prepared to furnish the farmers of Washtenaw, Oakland, Livingston and Wayne Counties with Lewis Moore's unrivaled Wheat Drill. It is enough to say of this Drill, that the highest premiums have been awarded it by several Agricultural State Fairs; also by a number of County Fairs in the States of Pennsylvania, Maryland, Michigan and others, over nearly every other Drill in use in the United States. It has been some improved, and is now got up in the most substantial manner for service and durability. I am now offering them at 25 per cent. less than any other in use, which places them within the reach of all. For further particulars address the subscriber, Ann Arbor, Mich.

jul3t

T. A. HAVILAND.

GREAT SALE OF SHORT-HORN & DEVON CATTLE AND SOUTH DOWN SHEEP.

ON WEDNESDAY, the 7th day of September next, at 1 o'clock P.M., I will sell, at my farm on Grand Island, six miles below Buffalo, about 30 full-bred Short-horns, a few Devons, and about 30 high grade Short-horn and Devon Cattle, consisting of Cows, Heifers and young Bulls.

The young Short-horns are chiefly the get of my imported bull Duke of Exeter (10,152)—a bull not exceeded, as a fine stock-getter, by any bull in the United States.

The young Devons are the get of the bulls Candy and Quartley, both imported by Mr. Stevens. The superior of these bulls in blood, style and breeding is not to be found. Quartley is my present stock bull.

I will offer at the same time 50 pure-bred Southdown Sheep—rams and ewes; also, a few Middlesex Pigs—both sheep and pigs the direct get of imported sires, from dams descended of late importations.

Catalogues will be ready by the first of August, and will be sent, on application to me, by mail.

TERMS—All sums of \$100 and less, cash. For larger sums, approved notes at four months, with interest, payable at bank, will be received, if preferred.

A steamboat will carry all persons wishing to attend across the ferry to the farm at 10 o'clock on the morning of the day of sale. The stock can be viewed at any time previous by calling on me at my residence in this place.

Black Rock, N. Y., June 15, 1853.

LEWIS F. ALLEN.
jul-3mo**BOOKS AND STATIONERY.**

RICHMONDS & BACKUS would call the attention of their friends and the public to their large and well selected stock of **BOOKS AND STATIONERY,**

which have been selected with great care, both as to quality and price, which we now offer at as low rates as can be sold in this market.

Our stock of paper is very large, enabling us to furnish Counties and Banks, Merchants and Shippers, Lawyers and Doctors, Mechanics and Farmers, with every style of Paper and Blank Books required to conduct their respective business.

We have increased our material and facilities for binding Music, Periodicals, Miscellaneous and Old Books. All work done promptly, and with neatness surpassed by none.

RICHMONDS & BACKUS.Desnoyers' block, cor. Jefferson ave. and Bates st.
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THE WATER-CURE JOURNAL.—A New Volume. Now is the time to subscribe. Published monthly in a beautiful quarto. Illustrated with engravings exhibiting the Structure, Anatomy and Physiology of the Human Body, with familiar instructions to learners. It is emphatically a Journal of Health, designed to be a complete Family Guide in all diseases.

TERMS—Only One Dollar a Year, in advance. Address, post-paid, FOWLERS & WELLS, Clinton Hall, 131 Nassau street, New York.

"The Water-Cure Journal holds a high rank in the science of health: always ready, straight-forward and plain-spoken. It unfolds the laws of our physical nature without any pretensions to the technicalities of science, but in a form as attractive and refreshing as the sparkling element of which it treats."—*New York Tribune*. jul4m

THE ILLUSTRATED AMERICAN PHRENOLOGICAL JOURNAL: Devoted to Phrenology, Physiology, Mechanism, Education, Agriculture, the Natural Sciences, and General Intelligence; Profusely Illustrated with Engravings.

Every family, and especially all young men and women, should have a copy. Published monthly, at One Dollar a year. All letters should be post-paid, and directed to FOWLERS & WELLS,

Clinton Hall, 131 Nassau st., New York.

Young men about launching forth upon the activities of life, and anxious to start right, and understand their course, will find this JOURNAL a friend and monitor, to encourage them in virtue, shield them from vice, and to prepare them for usefulness and success in life. The various occupations will be discussed in the light of Phrenology and Physiology, so that every one may know in what pursuit he would be most likely to succeed.—*FEELBERRERS*. jul1t

Rogers' Patent Wheel Cultivator.

WE would intimate to the Farmers of Western Michigan that we are manufacturing Rogers' Wheel Cultivator, and are prepared to show, by recommendations in our hands, and the testimony of all who have used it, that as an agricultural and labor-saving implement it has no superior.

This machine has taken the Premium at several State Fairs in the States of New York, Ohio and Michigan, and at all the County Fairs wherever exhibited. We are, this season, selling these machines at a reduced price. We would invite farmers to give it an early examination, and to forward their orders soon.

At our Foundry and Machine Shop we are also manufacturing Corn Cultivators, Macomber's Straw Cutter, Corn Shellers, Plows of various kinds, Steam-Engines, Mill Gearing, and castings in general on reasonable terms. A. ARMS & CO. Kalamazoo, June 18, 1853. jul2t

BOOTS AND SHOES!**THE GREAT COMMOTION IN DETROIT!!**

IS CAUSED BY THE OPENING OF THE **MICHIGAN BOOT AND SHOE STORE!**

WHERE SWIFT & SEYMOUR are now offering to the public a large, well-assorted and splendid stock of **BOOTS AND SHOES,** of every variety, style and quality, far too numerous to mention, and suitable for the selection of

ANY MAN, WOMAN, OR CHILD,

And at prices so VERY low that they

CANNOT FAIL

to suit the most judicious purchaser.

We intend to make it for the interest of **EVERY PERSON**

to call upon us before purchasing elsewhere; and we cordially invite ALL so to do.

OUR STOCK IS ENTIRELY NEW,and being manufactured of the BEST materials, by most experienced workmen, selected with great care, and designed expressly for **OUR RETAIL TRADE.**We are prepared to give rare Bargains to those who favor us with a call, at **T. K. ADAMS' OLD STAND.**Don't forget the **MICHIGAN BOOT AND SHOE STORE,** Jefferson avenue, First Block below Riddle House, and Second Block above Woodward avenue.

May, 1853-ly

SWIFT & SEYMOUR.

NEW YORK CHEAP JEWELRY STORE.

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L. P. DURKEE & CO., successors to (H. B. Marsh,) wholesale and retail dealers in

WATCHES, CLOCKS, JEWELRY & FANCY GOODS.

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ALL widows of all officers, and ALL soldiers of the Revolutionary war, are (by an act of Congress, approved Feb. 3, 1853,) entitled to a pension "for life" of the same amount their husbands drew or would have drawn had they applied. Heretofore, none were entitled only those married previous to January, 1800. Widows and orphans who have drawn FIVE YEARS' PENSION, under Act of July 4, 1836, July 21, 1848, and Feb. 22, 1849, are entitled to "FIVE YEARS' ADDITIONAL PENSION." And all widows and orphans (under 16) who have lost a husband or father in any war since 1790, are entitled to five years' pension (if not received.) Every officer and soldier who has at any time been wounded, or in any way disabled, in the service of the U. S., and in the line of his duty, is entitled to Pension for Life, according to the degree of his disability.

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Mr. Smith gives his personal attention to all work of our own make, and we use the best leather to be had in the market, and therefore believe there is not better work made in the State, than we are getting up.

We invite all wishing to purchase Boots and Shoes to examine our Stock and prices before buying elsewhere, as we shall use our best endeavors to give entire satisfaction.

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